



1.3.2 Number of certificate/ value added courses/ Diploma Programmes offered by the institutions and online courses of MOOCs, SWAYAM/e-PG Pathshala/ NPTEL and other recognized platforms (without repeat count) where the students of the institution have enrolled and successfully completed during the last five years.

OUR STRENGTH

Chief Patron

Hon Mr Teegala Krishna Reddy
Chairman, TKRES

Patrons.

Dr. Teegala Harinath Reddy

Secretary, TKRES

Sr. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K. M. V. Madan Kumar

Convenor:

Mr. MD. Muneeruddin Khan

Assistant Professor & HOD of CE

Coordinator:

Mr. T. Pavan Kumar

Assistant Professor, CE, TKREC

About TKREC:

TKR Engineering College – a modern temple of learning, an off shoot of the TKR Educational Society was established in the year 2002 in a sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

The department was established in the year of 2009 with an intake of 60 students now its 120. The Department offers a four-year UG course leading to B.Tech in Civil Engineering. The department has energetic and experienced faculty (Industrial & Teaching) for the benefit of the students and to promote R&D. The department has conducted National Conferences, Workshops, Seminars, Guest lecture, Industrial & Field Visits, etc to update the Technical knowledge of students. The department has fully equipped laboratories and all infrastructures to meet the academic requirements.

VISION:

To impart technical knowledge in the field of civil engineering and expose the graduate students to the technology.

A Value-Added Course

On

Decision Making

(06-02-2023 to 11-02-2023)

Organized by

Mr. MD. Muneeruddin Khan



Department of civil

TEEGALA KRISHNA

REDDY ENGINEERING

COLLEGE

(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)

Resource Person: Dr. J V Venkateswarlu



PRINCIPAL

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTUH
Accredited by NAAC with 'A' Grade, Accredited by NBA)

Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097

Mob: 8498085218. Email: info@tkrec.ac.in www.tkrec.ac.in



College Code: R9

Syllabus of decision making

Day 1: Introduction to Decision Making

- Introduction to the course
- Importance of decision making in various contexts
- Overview of decision-making processes

Day 2: Decision-Making Models and Theories

- Rational decision-making model
- Bounded rationality and satisficing
- Behavioral decision theory

Day 3: Decision Making Under Uncertainty and Risk

- Understanding uncertainty and risk
- Decision trees and payoff tables
- Expected value and utility theory

Day 4: Heuristics and Biases in Decision Making

- Common cognitive biases (confirmation bias, anchoring, etc.)
- Impact of heuristics on decision making
- Techniques to mitigate biases

Day 5: Group Decision Making

- Dynamics of group decision making
- Techniques for effective group decisions (e.g., brainstorming, nominal group technique)
- Challenges and benefits of group decision making

Day 6: Ethical Decision Making

- Ethical frameworks and principles
- Integrating ethics into decision making
- Case studies on ethical dilemmas

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PRINCIPAL
Praveen
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Civil Engineering

Certificate of Completion

This is to certify that **Akupathni Thanush Kumar** bearing roll number **21R91A0101** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "Decision Making", organized by Department of Civil Engineering, Teegala Krishna Reddy Engineering College, Hyderabad from **06th - 11th Feb, 2022**.





HOD-CE

(**MD.MUNEERUDDINKHAN**)

PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



PRINCIPAL-TKREC

(**Dr.K.VenkataMuraliMohan**)

OUR STRENGTH

Chief Patron

Hon.Mr.Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr.Teegala Harinath Reddy
Secretary, TKRES
Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice-Principal & Dean:

Dr.K.M.V.Madan Kumar

Convener:

Mr.MD.Muneeruddin Khan
Assistant Professor & HOD of CE

Coordinator:

Mr. N.Chandra Gupta
Assistant Professor, CE, TKREC

About TKREC:

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About Department:

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VISION:

To impart technical knowledge in the field of civil engineering and expose the graduate students to the technology.

A Value-Added Course

On
Critical Thinking
(17-10-2022 to 22-10-2022)

Organized by
Mr.MD.Muneeruddin Khan



Department of civil
TEEGALA KRISHNA
REDDY ENGINEERING
COLLEGE

(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)

Resource Person: Dr N.Bhaskar



PRIVATISM

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

Sponsored by TNR Educational Society, Approved by AICTE, Affiliated to JNTUH
Accredited by NAAC with 'A' Grade, Accredited by NIS

Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of critical thinking

Day 1: Introduction to Critical Thinking

- Introduction to the course
- Definition and importance of critical thinking
- Basic concepts and terms

Day 2: Arguments and Their Components

- Understanding arguments: premises and conclusions
- Types of arguments: deductive and inductive

Day 3: Identifying and Evaluating Arguments

- Identifying arguments in written and spoken communication
- Criteria for evaluating arguments

Day 4: Logical Fallacies I

- Introduction to logical fallacies
- Common fallacies: ad hominem, straw man, false dilemma, etc.

Day 5: Logical Fallacies II

- More fallacies: hasty generalization, slippery slope, circular reasoning, etc.
- Practice exercises

Day 8: Evaluating Evidence

- Types of evidence: statistical, anecdotal, testimonial
- Criteria for evaluating evidence

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Medbowli, Meerpet, Hyderabad - 97.



TEEGALAKRISHNAREDDYENGINEERINGCOLLEGE
(UGC-AUTONOMOUS)

Meerpeta, Hyderabad - 500097

Department of Civil Engineering

Certificate of Completion

This is to certify that **Katravath Prakash** bearing roll number **20R91A0112** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Critical Thinking**", organized by Department of Civil Engineering, Teegala Krishna Reddy Engineering College, Hyderabad from **17th -22th Oct, 2022**.



[Signature]
HOD-CE
(MD.MUNEERUDDINKHAN)

[Signature]

PRINCIPAL-TKREC
(Dr.K.VenkataMuraliMohan)

[Signature]
PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpeta 500097

OUR STRENGTH

Chief Patron

Hon. M. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy

Secretary, TKRES

Sri. Teegala Amaranath Reddy

Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice-Principal & Dean:

Dr. K.M.V. Madan Kumar

Convener:

Mr. MD. Munceruddin Khan

Assistant Professor & HOD of CE

Coordinator:

Mr. T. Pavan Kumar

Assistant Professor, CE, TKREC

About TKREC:

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VISION:

To impart technical knowledge in the field of civil engineering and expose the graduate students to the technology.

A Value-Added Course

On

Basic Computer Training
(18-04-2023 to 25-04-2023)

Organized by

Mr. MD. Munceruddin Khan



Department of CIVIL

TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE

(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTU II,
Hyderabad, Telangana)

Resource Person: Mr. ADEPU REJESH



PRINCIPAL

Teegala Krishna Reddy Engineering College

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500 037.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTUH
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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097

Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Basic Computer Training

Day 1: Introduction to Computers

1. Overview of computer hardware components
2. Introduction to computer software and operating systems
3. Basic computer operations and navigation

Day2: Essential Software Tools

1. Word processing: Microsoft Word or Google Docs
2. Spreadsheets: Microsoft Excel or Google Sheets
3. Presentation software: Microsoft PowerPoint or Google Slides

Day3: Internet Basics and Digital Communication

1. Browsing the internet and using search engines effectively
2. Email communication: composing, sending, and managing emails
3. Online safety and security principles

Day4: File Management and Basic Troubleshooting

1. Understanding file systems and file management techniques
2. Basic troubleshooting techniques for common computer problems
3. Backup and data recovery strategies

Day5: Productivity Tools and Digital Citizenship

1. Task management and collaboration tools
2. Introduction to coding concepts and programming languages (optional)
3. Digital citizenship: ethical considerations, online etiquette, and privacy management

Day6: Practical Projects and Capstone

1. Practical exercises and hands-on projects applying learned skills
2. Capstone project: applying computer skills to real-world scenarios
3. Project presentations and peer feedback

Wraah

Wraah
HEAD OF THE DEPARTMENT
Department of Civil Engineering
Teegala Krishna Reddy Engineering College,
Meerpet, Saroof Nagar, Hyderabad-97.



NBA
NATIONAL BOARD
OF ACCREDITATION

TEEGALAKRISHNAREDDYENGINEERINGCOLLEGE

(UGC-AUTONOMOUS)

Meerpet,Hyderabad-500097

Department of Civil Engineering

Certificate of completion

This is to certify that Thoomu Anudeep bearing roll number 20R91A0123 has been completed the course on "Basic Computer Training", organized by Department of Civil Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 18Th

-25Th APRIL, 2023.



(Signature of HOD-CE)

HOD-CE

Principal
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.

(Signature of Principal)

PRINCIPAL-TKREC

(MD.MUNEERUDDIN KHAN)

(Dr.K.Venkata Murali Mohan)



TEEGALA KRISHNA REDDY

ENGINEERING COLLEGE (Sponsored by TMR

Educational Society, Approved by AICTE, Affiliated by JNTU H, Accredited by NBA & NAAC)

Medbowli, Meerpet, Saraccoanagar, Hyderabad-500097

Phone 040-24092838 Fax +91-040-24092555

Email tkrec@rediffmail.com Website www.tkrec.ac.in

About the Institution.

Teegala Krishna Reddy Engineering College (TKREC) was founded in the year 2005 by TMR Educational society established in 2001 under the dynamic leadership of Sri Teegala Krishna Reddy, M.L.A. with prime motto of educating people with strong basic knowledge. Teegala Krishna Reddy Engineering College (TKREC) was established with a vision of imparting knowledge and instilling skills to the aspiring students in the fields of Engineering, Technology, Science and Management to face the emerging challenges of the society. The college offers diploma courses in EEE, ECE, CME, CE and UG courses in CE, EEE, ECT, CSE, IT and PG courses in M.TECH and M.B.A.

About the Department:

The department of Electrical and Electronics Engineering was started in 2005, with intake of 60. A vision of striving to provide quality education and train students in the contemporary technologies, to meet the needs and demands of global industry shaping them into skilful engineers imbued with professional ethics. The department is run by well qualified and experienced faculty committed to train students realizing the importance of latest

VALUE ADDED COURSE OF PROFESSIONAL ETHICS.

PROFESSIONAL ETHICS IN ENGINEERING



From JULY 16th TO JULY 16th 2022

About the course:

Professional ethics in law refers to the set of moral principles and standards that guide the behaviour and conduct of legal

professionals. It

encompasses the values and obligations that lawyers and advocate must uphold while practicing law

Organizing Committee:

Chief Patron: Sri. Teegala Krishna Reddy,

CHAIRMAN, TMR,ES

Patrons, Dr. T. Harinath Reddy,

SECRETARY, TKREC,

Sr. V. Amarnath Reddy,

THEANATH, TKREC,

Dr. S. R. Rama Swamy

DIRECTOR, TMR,ES

Chairman: Dr. P. Ram Mohan Rao

FLININGPAT, TKREC,

Advisory

Committee: K. Soundararajan,

PROF. &amp;amp;amp;amp;amp; DEAN (R&D)

A.V. Prathap Kumar

Venue & Duration:

Auditorium: R9

Timing: 10:00 am to 1.00 pm

For further information contact:

Coordinator

Mr. B. Ramesh,

Asst. Prof. EEE Dept.

7556706616.



PRINCIPAL

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)

Medbowli, Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTUH
Accredited by NAAC with 'A' Grade. Accredited by NBA)

Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in. www.tkrec.ac.in

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



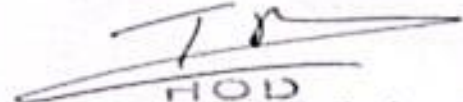
College Code: R9

Syllabus of Value-added Course on PROFESSIONAL ETHICS.

Unit –I : ENGINEERING ETHICS Unit Syllabus : Senses of 'Engineering Ethics' – Variety of moral issues – Types of inquiry – Moral dilemmas – Moral Autonomy – Kohlberg's theory – Gilligan's theory – Consensus and Controversy – Models of professional roles - Theories about right action – Self-interest – Customs and Religion – Uses of Ethical Theories.

Unit–II: ENGINEERING AS SOCIAL EXPERIMENTATION Unit Syllabus : Engineering as Experimentation – Engineers as responsible Experimenters – Codes of Ethics – A Balanced Outlook on Law.

Unit –III: SAFETY, RESPONSIBILITIES AND RIGHTS Unit Syllabus : Safety and Risk – Assessment of Safety and Risk – Risk Benefit Analysis and Reducing Risk - Respect for Authority – Collective Bargaining – Confidentiality – Conflicts of Interest – Occupational Crime – Professional Rights – Employee Rights – Intellectual Property Rights (IPR) – Discrimination


HOD
Electrical and Electronics Engineering
TKR Engineering College
Meerpet, Hyderabad-500 079


PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



NBA
NATIONAL BOARD
OF ACCREDITATION



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering

Certificate of Completion

This is to certify that NITESH LAL bearing with roll number 18R95A0227 of Teegala Krishna Reddy Engineering College has been completed the course on "PROFESSIONAL ETHICS", organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 11th-16th July, 2022.

HOD-EEE
(T. Madhu Babu)

PRINCIPAL-TKREC
(Dr. K. Venkata Murali Mohan)



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)



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Accredited by NAAC with 'A' Grade. Accredited by NBA)



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Mob: 8498085218. Email: info@tkrec.ac.in. www.tkrec.ac.in

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING


College Code: R9

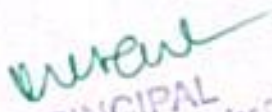
Syllabus of Value-added Course on HEALTH AND WELLNESS

Unit –I: Mental Health (6 weeks) In this unit, students study the brain and mental health.,

Unit –II : Substance Abuse (6 weeks) In this unit , students study the impact of specific substances on the brain and body, including tobacco, marijuana, and alcohol

Unit –III Fitness and Nutrition (6 weeks) In this unit, students develop an understanding of the fundamentals of personal health, fitness, and nutrition, including how to make healthy decisions and set short-term goals for improving their health. Students will learn to recognize the behaviors associated with eating disorders and the impact of eating disorders on the body and brain. Students will understand how food is presented and packaged for the consumer.


HOD
Electrical and Electronics Engineering
TKR Engineering College
Meerpet, Hyderabad-500 079


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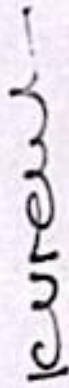
Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering

Certificate of Completion

This is to certify that **MAKSHAY** bearing with roll number **21R95A0246** of Teegala Krishna Reddy Engineering College has been completed the course on "**HEALTH AND WELLNESS**", organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 12th to 17th September, 2022.


HOD-EEE
(T. Madhu Babu)



PRINCIPAL-TKREC
(Dr. K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
Hyderabad-97
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.

Chief Patron

Sri Teegala Krishna Reddy

Chairman
TKR Educational Society

Patron

Dr. T. Harinath Reddy

Secretary
TKR Educational Society

Co-Patron

Sri. T. Amarnath Reddy

Treasurer
TKR Educational Society

Principal-TKREC

Dr. K.V. Murali Mohan

Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

Head of the Department

Dr.SK Umar Faruq

VISION

- To be a centre of learning in the field of Electronics and Communication Engineering to develop competent professionals for industry and to fulfill the needs of the society

MISSION

- To impart quality education through effective teaching learning process
- To provide essential inter-disciplinary technology to make the students readily employable
- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- PEO1: The graduates will be able to adopt emerging technology for career development
- PEO2: The graduate will be able to develop professional skills and sense of social responsibility that paves them a way to secure key position
- PEO3: The graduate will have the capability to analyses real life problems of the society and produce innovative solutions

**1 Week Value Added Course on
CRITICAL THINKING SKILLS**

**22-08-2022
to
27-08-2022**

**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

(UGC-AUTONOMOUS)
(Approved by AICTE, NBA & NAAC- 'A' Grade.
Affiliated to JNTUH)
Medbowli, Meerpet, Saroornagar, Ranga Reddy
Dist Hyderabad, Telangana State-500097



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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in. www.tkrec.ac.in



College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 10-08-2022

Syllabus of Critical Thinking Skills

Introduction to Critical Thinking

1. Definition and importance of critical thinking
2. Characteristics of a critical thinker
3. The role of critical thinking in academic and professional success

Logic and Reasoning

1. Principles of deductive and inductive reasoning
2. Logical fallacies and how to recognize them
3. Practice exercises in logical reasoning

Analytical Thinking

1. Problem-solving techniques and strategies
2. Analysing and evaluating arguments
3. Case studies and group discussions on analytical thinking

Cognitive Biases and Heuristics

1. Understanding common cognitive biases and heuristics
2. How biases influence decision-making and problem-solving
3. Techniques for mitigating biases and improving decision-making

Creative Thinking

1. Techniques for fostering creativity and innovation
2. Brainstorming and mind mapping exercises
3. Applying creative thinking to solve complex problems

Decision-Making and Problem-Solving

1. The decision-making process; identifying, evaluating, and choosing alternatives
2. Tools and frameworks for effective decision-making
3. Case studies and role-playing scenarios on decision-making



W. S. Ravi
PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)



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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Application and Reflection

1. Application of critical thinking skills in real-world scenarios
2. Reflection on personal learning and growth
3. Evaluation and feedback session

Handwritten signature of Dr. SK. Umar Faruk in black ink.
HOD/ECE

Dr.SK. UMAR FARUK
HOD ECE
Teegala Krishna Reddy Engineering College
Medbowli Meerpet Hyderabad-97

Handwritten signature of Dr. K. Venkata Murali Mohan in green ink.
PRINCIPAL

DR K.VENKATA MURALI MOHAN
PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.





TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **KOTLA SHASHANK** bearing roll number **19R91A0428** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**CRITICAL THINKING SKILLS**", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **22-08-2022** to **27-08-2022**

HOD-ECE

(Dr. SK. UMAR FARUK)



PRINCIPAL-TKRE

(Dr.K. Venkata Margal Mohan)
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.



Chief Patron

Sri Teegala krishna Reddy

Chairman
TKR Educational Society

Patron

Dr. T. Harinath Reddy

Secretary
TKR Educational Society

Co-Patron

Sri. T. Amarnath Reddy

Treasurer
TKR Educational Society

Principal-TKREC

Dr. K.V. Murali Mohan

Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

Head of the Department

Dr.SK Umar Faruq

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- PEO2: The graduate will be able to develop professional skills and sense of social responsibility that paves them a way to secure key position
- PEO3: The graduate will have the capability to analyse real life problems of the society and produce innovative solutions

**1 Week Value Added Course on
5G EMERGING TECHNOLOGY**

21-11-2022

to

26-11-2022

**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 16-11-2022

Syllabus of 5G Emerging Technologies

Introduction to 5G Technology

1. Evolution of wireless communication standards
2. Key features and requirements of 5G networks
3. Use cases and applications of 5G technology

5G Architecture and Protocols

1. Architecture of 5G networks (core network, radio access network)
2. Protocol stack and interfaces in 5G architecture
3. Overview of network slicing and virtualization in 5G

5G Deployment Scenarios

1. Non-standalone (NSA) vs. standalone (SA) deployment options
2. Small cell deployment and mm Wave technology
3. Challenges and opportunities in 5G deployment

Emerging Technologies in 5G

1. Massive MIMO (Multiple Input Multiple Output) technology
2. Beam forming and beam management techniques
3. Ultra-reliable low-latency communication (URLLC) in 5G

IOT and 5G Integration

1. Role of 5G in enabling the Internet of Things (IOT)
2. IOT use cases and applications in various sectors (smart cities, healthcare, agriculture)
3. Hands-on session: IOT application development using 5G network infrastructure

Artificial Intelligence and Edge Computing in 5G

1. Integration of artificial intelligence (AI) with 5G networks
2. Edge computing architectures and their role in enhancing 5G performance
3. Practical use cases of AI and edge computing in 5G networks



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Future Trends and Industry Applications

1. Overview of future trends in 5G and beyond (6G, terahertz communication)
2. Industry-specific applications and case studies (automotive, entertainment, manufacturing)
3. Project showcase and evaluation


-HOD/ECE

Dr.SK. UMAR FARUK

HOD ECE

Teegala Krishna Reddy Engineering College
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PRINCIPAL

DR K.VENKATA MURALI MOHAN

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Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **BHUSANI NAVYASRI** bearing roll number **19R91A0405 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "5G EMERGING TECHNOLOGY", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **21-11-2022** to **26-11-2022**

HOD-ECE

(Dr. SK. UMAR FARUK)



PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

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Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

Head of the Department

Dr.SK Umar Faruq

VISION

- To be a centre of learning in the field of Electronics and Communication Engineering to develop competent professionals for industry and to fulfill the needs of the society

MISSION

- To impart quality education through effective teaching learning process
- To provide essential inter-disciplinary technology to make the students readily employable
- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- PEO1: The graduates will be able to adopt emerging technology for career development
- PEO2: The graduate will be able to develop professional skills and sense of social responsibility that paves them a way to secure key position
- PEO3: The graduate will have the capability to analyse real life problems of the society and produce innovative solutions

1 Week Value Added Course on

"PCB DESIGN"

20-02-2023

to

25-02-2023

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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date:14-02-2023

Syllabus of PCB Design

Day 1: Introduction to PCB Design

1. Basics of electronics and circuit design
2. Introduction to PCBs: purpose, types, and components
3. Overview of PCB design process and workflow

Day 2: PCB Design Tools and Software

1. Introduction to industry-standard PCB design software (e.g., Altium Designer, Eagle, KiCad)
2. Software interface and basic tools/features
3. Hands-on session: Software familiarization and simple PCB layout design

Day 3: Schematic Design

1. Basics of schematic capture
2. Creating and editing schematic symbols and components
3. Net list generation and annotation

Day 4: PCB Layout Design

1. PCB layout guidelines and design rules
2. Component placement and routing techniques
3. Signal integrity considerations (impedance matching, noise reduction)

Day 5: PCB Fabrication and Assembly

1. Introduction to PCB fabrication processes (etching, drilling, solder mask)
2. PCB assembly techniques (surface mount, through-hole technology)
3. Design for manufacturability (DFM) and design for assembly (DFA) guidelines

Day 6: Advanced Topics in PCB Design and Project Work and Evaluation

1. High-speed PCB design considerations
2. Multi-layer PCB design techniques
3. Thermal management and heat dissipation in PCBs



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College Code: R9

4. Participants worked on a mini-project to design a PCB for a specific electronic circuit or application
5. Evaluation of projects based on design quality, adherence to design rules, and manufacturability
6. Certificate distribution to participants who successfully completed the course

Dr. SK. Umar Faruk
HOD/ECE

Dr.SK. UMAR FARUK

HOD ECE

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Dr. K. Venkata Murali Mohan
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Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **R KRISHNA VAMSHI** bearing roll number **19R91A04A7** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "PCB DESIGN", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **20-02-2023** to **25-02-2023**

HOD-ECE

(Dr. SK. UMAR FARUK)



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- PEO3: The graduate will have the capability to analyse real life problems of the society and produce innovative solutions

**1 Week Value Added Course on
"ML USING PYTHON"**

13-03-2023

to

18-03-2023

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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 06-03-2023

Syllabus of Machine learning using Python

Introduction to Machine Learning

1. Overview of machine learning concepts
2. Types of machine learning (supervised, unsupervised, reinforcement learning)
3. Introduction to Python programming language and its libraries for machine learning (NumPy, Pandas, Scikit-learn)

Data Pre-processing

1. Data cleaning and handling missing values
2. Data normalization and standardization
3. Feature engineering techniques

Supervised Learning Algorithms

1. Linear regression
2. Logistic regression
3. Decision trees and random forests

Unsupervised Learning Algorithms

1. K-means clustering
2. Hierarchical clustering
3. Principal Component Analysis (PCA)

Model Evaluation and Optimization

1. Cross-validation techniques
2. Hyperparameter tuning
3. Evaluation metrics (accuracy, precision, recall, F1-score)



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College Code: R9

Deep Learning Basics

1. Introduction to neural networks
2. Building a simple neural network using TensorFlow or PyTorch

Practical Applications and Project Work

1. Application of machine learning in various domains (finance, healthcare, marketing, etc)
2. Project work: Students were given a hands-on project to apply their learning and solve a real-world problem using machine learning techniques.


HOD/ECE

Dr.SK. UMAR FARUK

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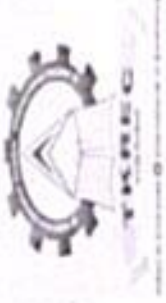

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Dr. K. Bhargavi
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VISION:

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A Value-added Course On

MULTI TECHNOLOGY

31-01-2023
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Resource Persons: **MR.B. ARAVIND**
Professor CSE



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College Code: R9

Syllabus of Value-added Course on Multi Technology

Day 1 : Introduction to Multi-Technology

- 1) Overview of various technological domains
- 2) Importance of multi-technology integration
- 3) Emerging trends and interdisciplinary applications

Day 2: Artificial Intelligence (AI)

- 1) Introduction to AI and machine learning
- 2) Applications of AI in healthcare, finance, and other industries
- 3) Hands-on exercises with AI tools and algorithms

Day 3: Blockchain Technology

- 1) Basics of blockchain technology and cryptocurrencies
- 2) Smart contracts and decentralized applications (DApps)
- 3) Practical demonstrations of blockchain applications

Day 4: Internet of Things (IoT)

- 1) Overview of IoT architecture and components
- 2) IoT sensors, actuators, and communication protocols
- 3) IoT applications in smart cities, agriculture, and healthcare

Day 5: Renewable Energy Technologies

- 1) Introduction to renewable energy sources (solar, wind, hydro)
- 2) Basics of energy conversion and storage
- 3) Case studies and practical demonstrations of renewable energy systems

Day 6: Biotechnology and Bioinformatics

- 1) Introduction to biotechnology and genetic engineering
- 2) Applications of biotechnology in healthcare, agriculture, and environment
- 3) Introduction to bioinformatics and computational biology

Day 7: Nanotechnology

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College Code: R9

- 1) Basics of nanotechnology and nanomaterials
- 2) Applications of nanotechnology in electronics, medicine, and materials science
- 3) Hands-on activities with nanomaterial synthesis and characterization

Day 8: Robotics and Automation

- 1) Introduction to robotics and automation technologies
- 2) Types of robots and their applications in manufacturing and services
- 3) Hands-on exercises with robotics kits and automation tools

Emerging Technologies and Innovations

- 4) Overview of other emerging technologies (e.g., quantum computing, augmented reality)
- 5) Innovation and entrepreneurship in multi-technology domains
- 6) Student presentations on innovative multi-technology solutions



Cut
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Dr. T. K. PAVAN KISHOR
Head of the Department
of Computer Science and Engineering
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Hyderabad - 97.

Principal
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Department of Computer Science and Engineering

Certificate of Completion

This is to certify that ANAGANTI LIKITHA bearing roll number 21R91A0513 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "MULTI TECHNOLOGY", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 31-01-2023 to 08-02-2023

HOD-CSE

(Dr.CH. V. Phani krishna)



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(Dr.K. Venkata Murali Mohan)

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A Value-added Course On

POWER BI
10-10-2022
Organized by



Department of CSE

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Resource Persons: **G. Bhargavi**
Professor CSE



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College Code: R9

Syllabus of Value-added Course on POWER BI

Day 1:

1. Understanding Data,
2. What is data,
3. Where to find data,
4. Foundations for building Data Visualizations,
5. Creating Your First visualization?

Day 2:

1. Getting started with Tableau Software using Data file formats
2. Connecting your Data to Tableau, creating basic charts(line, bar charts, Tree maps),
3. Using the Show me panel.

Day 3:

1. Tableau Calculations
2. Overview of SUM, AVR
3. Aggregate features
4. Creating custom calculations and fields.

Day 4:

1. Applying new data calculations to your visualizations
2. Formatting Visualizations, Formatting Tools and Menus
3. Formatting specific parts of the view.

Day 5:

1. Editing and Formatting Axes
2. Manipulating Data in Tableau data
3. Pivoting Tableau data.

Day 6:

1. Structuring your data

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2.Sorting and filtering Tableau data

3. Pivoting Tableau data

Day 7:

1. Advanced Visualization Tools: Using Filters
2. Using the Detail panel,
3. Using the Size panels,
4. Customizing filters,
5. Using and Customizing tooltips,
6. Formatting your data with colors.

Day 8:

1. Creating Dashboards & amp;
2. Storytelling, creating your first dashboard and Story,
3. Design for different displays,
4. adding interactivity to your Dashboard,
5. Distributing & amp;
6. Publishing your Visualization.

Day 9:

1. Tableau file types, publishing to Tableau Online
2. Sharing your visualizations, printing,
3. Exporting.

Day 10:

1. Creating custom charts,
2. cyclical data and circular area charts,
3. Dual Axis charts.



Cy
HOD-CSE
Dr. C. N. V. PRASAD RYDHYRULA
Head of the Department
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Department of Computer Science and Engineering

Certificate of Completion

This is to certify that **K BHANU PRAKASH** bearing roll number **21R01A05A2** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has completed the course on **"POWER BI"** organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from **10-11-2022 to 17-10-2022**.



C.V.V.

HOD-CSE

(Dr.Ch. V. Phani krishna)

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K. Venkata

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Assistant Professor, CSE, TKREC

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About Department:

Department of CSE was Established in the year 2005, and Offers B.Tech degree in CSE with an intake of 240, M.Tech in CSE with an intake of 24. It has Sophisticated infrastructural, state-of-art labs and experienced faculty. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programmes, industrial tours and visits, etc. In view of all these academic activities, the department has been accredited by NBA.

VISION:

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A Value-added Course On

REACT JS

07-11-2022

Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC – 'A',
Affiliated to JNTUH, Hyderabad, Telangana)

**Resource Persons: MR. K. Vignesh
Professor CSE**



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Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that KATAM SOUMYA bearing roll number 21R91A05B7 of TEEGALA KRISHNAREDDY ENGINEERING COLLEGE has been completed the course on "REACT JS", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 07-11-2022 to 14-11-2022

HOD-CSE

(Dr. Ch. V. Phani Krishna)



PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)

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Convener:

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Prof & HOD of CSE

Coordinators:

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Assistant Professor, CSE, TKREC

Mr. T. Rakesh Kumar

Assistant Professor, CSE, TKREC

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Dr. K. Bhargavi

Assoc. Professor, CSE, TKREC

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VISION:

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A Value-added Course On

INTELLIGENT SYSTEMS FOR SUSTAINABLE DEVELOPMENT

09-11-2022

Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC – 'A',
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Resource Persons: **V. KAVYA**

Professor CSE



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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097

Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Intelligent Systems for Sustainable Development

Day 1. Introduction to Sustainable Development:

- 1) Concepts and principles of sustainable development
- 2) Global challenges and sustainability goals (e.g., UN Sustainable Development Goals)

Day 2 Foundations of Intelligent Systems:

- 1) Introduction to artificial intelligence (AI) and machine learning (ML)
- 2) Basics of data analytics and data-driven decision-making
- 3) Introduction to intelligent systems and their applications

Day 3 Applications of Intelligent Systems in Sustainable Development:

- 1) Intelligent systems for environmental monitoring and management
- 2) Smart cities and urban sustainability
- 3) Renewable energy management using AI/ML
- 4) Sustainable agriculture and precision farming

Day 4 Data Management and Analysis for Sustainability:

- 1) Data collection methods for sustainability analysis
- 2) Data preprocessing techniques
- 3) Data visualization and interpretation for sustainability insights

Day 5 Decision Support Systems for Sustainable Development:

- 1) Optimization techniques for resource allocation
- 2) Multi-criteria decision-making in sustainability contexts
- 3) Risk assessment and management using intelligent systems

Day 6 Case Studies and Projects:

- 1) Real-world applications of intelligent systems in sustainable development
- 2) Group projects or case studies analysing sustainability issues and proposing intelligent system solutions

Day 7 Ethical and Social Considerations:

- 1) Ethical implications of using AI/ML in sustainable development

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

2) Social equity and justice considerations in implementing intelligent systems for sustainability

Day 8 Emerging Technologies for Sustainable Development:

- 1) Blockchain for sustainable supply chain management
- 2) Internet of Things (IoT) applications for environmental monitoring
- 3) Advanced AI techniques for sustainability challenges

Policy and Governance in Sustainable Development:

- 4) Policy frameworks and regulations for promoting sustainable development
- 5) Governance structures and stakeholder engagement in sustainability initiatives

Future Directions and Challenges:

- 6) Emerging trends and technologies in sustainable development and intelligent systems
- 7) Challenges and opportunities in scaling up intelligent systems for sustainability on a global scale

Cybil
HOD-CSE

Dr. C.V.V. PRASAD RAO
Head of the Department
Computer Science and Engineering
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Balapur (M), Hyderabad - 500097



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Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that BATHULA HARI CHANDANA bearing roll number 19R91A0512 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "INTELLIGENT SYSTEMS FOR SUSTAINABLE DEVELOPMENT", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 09-11-2022 to 16-11-2022.



CHN

HOD-CSE

(Dr.Ch. V. Phani krishna)

PRINCIPAL
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Meerpet, Hyderabad

K. Venkata

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

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Prof & HOD of CSE

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Assistant Professor, CSE, TKREC

Mr. T. Rakesh Kumar

Assistant Professor, CSE, TKREC

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Assoc. Prof & Head of AI&ML, TKREC

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Dr. B. Bhargavi

Assoc. Professor, CSE, TKREC

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VISION

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A Value-added Course

ON

Computational Intelligence and Block Chain Technology

(12th-sep-2022)

Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING
COLLEGE

(Approved by AICTE, accredited by NBA & NAAC - 'A',
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Resource Persons: B. SWETHA,

Professor CSE



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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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College Code: R9

Syllabus of Value-added Course on Computational Intelligence and Block Chain Technology

Day 1: Introduction to Computational Intelligence (CI) and Blockchain Technology

- 1) Overview of computational intelligence techniques (e.g., neural networks, evolutionary algorithms, fuzzy systems)
- 2) Introduction to blockchain technology, decentralized networks, and cryptocurrencies

Day 2 :Foundations of Computational Intelligence:

- 1) Basics of neural networks and deep learning algorithms
- 2) Evolutionary computing techniques such as genetic algorithms and genetic programming
- 3) Fuzzy logic and fuzzy systems

Day 3: Blockchain Fundamentals:

- 1) Blockchain architecture and consensus mechanisms
- 2) Cryptography and cryptographic protocols in blockchain
- 3) Smart contracts and decentralized applications (DApps)

Day 4 :Applications of Computational Intelligence in Blockchain:

- 1) Optimization and prediction in blockchain networks
- 2) Anomaly detection and security in blockchain systems using CI techniques
- 3) Scalability and performance optimization of blockchain systems with CI

Day 5 :Smart Contracts and Decentralized Autonomous Organizations (DAOs):

- 1) Design and implementation of smart contracts using CI techniques
- 2) Governance and decision-making in DAOs using computational intelligence

Day 6 :Blockchain and AI Integration:

- 1) Integration of AI algorithms with blockchain networks
- 2) AI-driven analytics and insights from blockchain data
- 3) Use cases of AI-powered blockchain applications (e.g., supply chain management, healthcare, finance)

Day 7: Blockchain Privacy and Security:

- 1) Privacy-preserving techniques in blockchain (e.g., zero-knowledge proofs)

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College Code: R9

- 2) Security challenges and solutions in blockchain networks
- 3) Role of computational intelligence in enhancing blockchain security

C. Sri

HOD-CSE

DR. CH. K. PIVARI REDDY
Head of the Department
Computer Science and Engineering
TKREC, Medbowli, Meerpet, Hyderabad - 500097



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Department of Computer Science and Engineering

Certificate of Completion

*This is to certify that SANGALA ANVITHA bearing roll number 19R91A05B5 of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "Computational Intelligence and Block Chain Technology", organized by Department of **Computer Science and Engineering**, Teegala Krishna Reddy Engineering College, Hyderabad, from 12-09-2022 to 19-09-2022.*

CHV

HOD-CSE

(Dr.CH.V. Phani krishna)



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Meerpet, Hyderabad

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

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Treasurer, TKRES

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Assistant Professor, CSE, TKREC

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Dr. N. Bhargavi

Assoc. Professor, CSE, TKREC

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VISION

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological society.



A Value-added Course On

DATA SCIENCE USING R

1-09-2022

Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC – 'A',
Affiliated to JNTUH, Hyderabad, Telangana)

Resource Persons: **B. UPENDER REDDY**
Professor CSE



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(UGC-RO Hyderabad)
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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Data Science using R

Day 1 Introduction to Data Science and R

- 1) Overview of data science
- 2) Introduction to R and RStudio
- 3) R basics: data types, vectors, matrices, data frames

Day 2 Data Manipulation with dplyr

- 1) Data manipulation basics
- 2) Filtering, selecting, arranging, and summarizing data
- 3) Grouping and aggregating data

Day 3 Data Visualization with ggplot2

- 1) Introduction to ggplot2
- 2) Creating basic plots: scatter plots, bar plots, histograms
- 3) Customizing plots and adding layers

Day 4 Data Import and Export

- 1) Importing data from various sources: CSV, Excel, databases
- 2) Exporting data to different formats
- 3) Handling missing data

Day 5 Statistical Analysis with R

- 1) Descriptive statistics
- 2) Inferential statistics: hypothesis testing, confidence intervals
- 3) Linear regression analysis

Day 6 Exploratory Data Analysis (EDA)

- 1) Understanding the structure of data
- 2) Identifying patterns and trends
- 3) EDA techniques using R

Day 7 Machine Learning Basics

- 1) Introduction to machine learning

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College Code: R9

2)Supervised vs. unsupervised learning

3)Model evaluation and validation

Day 8 Machine Learning Algorithms in R

1)Linear regression

2)Logistic regression

3)Decision trees

4)Random forests

Cyri

HOD-CSE

Dr. CH.V. PRASAD KAREEMULA
Head of the Department
Computer Science and Engineering
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Hyderabad - 500097



Principal
PRINCIPAL

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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that JOGU RUPA bearing roll number 20R91A0562 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "DATA SCIENCE USING R", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 1-09-2022 to 8-09-2022.

C.M

HOD-CSE

(Dr.CH. V. Phani krishna)



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(UGC-AUTONOMOUS)
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PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

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Prof. & HOD of CSE

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Mr. T. Rakesh Kumar

Assistant Professor, CSE, TKREC

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Dr. K. Sarangam

Assoc.Prof & Head CSD, TKREC

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VISION:

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PRINCIPAL

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Meerpet, Hyderabad - 97.

A Value-added Course On

Role of Artificial Intelligence in cyber security- CSE

18-01-2023

Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC - 'A',
Affiliated to JNTUH, Hyderabad, Telangana)

Resource Persons: MR. S. Yugandhar Reddy
Professor CSE



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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Role of Artificial Intelligence in Cyber Security

Day 1 Introduction to Artificial Intelligence and Cybersecurity

- 1) Overview of artificial intelligence and machine learning
- 2) Introduction to cybersecurity: threats, attacks, and defences
- 3) Role of AI in enhancing cybersecurity capabilities

Day 2 Machine Learning Fundamentals for Cybersecurity

- 1) Basics of machine learning algorithms
- 2) Supervised, unsupervised, and semi-supervised learning
- 3) Feature selection and engineering for cybersecurity data

Day 3 AI-based Threat Detection

- 1) Signature-based vs. anomaly-based detection methods
- 2) Machine learning models for identifying malicious activities
- 3) Threat intelligence and information sharing

Day 4 Malware Analysis using AI

- 1) Techniques for malware detection and classification
- 2) Behavioral analysis of malware samples
- 3) Dynamic and static analysis approaches

Day 5 Intrusion Detection Systems (IDS)

- 1) Introduction to IDS and network security monitoring
- 2) AI-powered intrusion detection techniques
- 3) Real-time threat detection and response

Day 6 Security Automation and Orchestration

- 1) Automating security tasks using AI and machine learning
- 2) Incident response automation and playbook development
- 3) Integration of AI-driven security orchestration platforms

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College Code: R9

Day 7 Adversarial Machine Learning

- 1) Threats to machine learning models in cybersecurity
- 2) Adversarial examples and attacks on AI systems
- 3) Defense strategies against adversarial attacks

Cut

HOD-CSE

Dr. K. V. Venkatakrishna
Head of the Department
Computer Science and Engineering
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Balapur, Hyderabad, Telangana - 500097



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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that AEDDULA SRITHA bearing roll number 20R91A0507 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "Role of Artificial Intelligence in cyber security-CSE", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 18-01-2023 to 25-01-2023.

HOD-CSE

(Dr. CH.V. Phani Krishna)

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Convener:

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Mr. T. Rakesh Kumar

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About Department:

Department of CSE was Established in the year 2005, and Offers B.Tech degree in CSE with an intake of 240, MTech in CSE with an intake of 24. It has Sophisticated infrastructural, state-of-art labs and experienced faculty. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programmes, industrial tours and visits, etc. In view of all these academic activities, the department has been accredited by NBA.

VISION:

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological society



PRINCIPAL
Teegala Krishna Reddy Engg
(UGC-AUTONOMOUS)
Meerpet, Hyderabad

A Value-added Course On

Research & Application perspectives in Artificial Intelligence-CSE

11-04-2022

Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC - 'A',
Affiliated to JNTUH, Hyderabad, Telangana)

Resource Persons: J Karthik

Professor CSE



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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College Code: R9

Syllabus of Value-added Course on Research and Application Perspectives in Artificial Intelligence

Day 1 Introduction to Artificial Intelligence Research

- 1) Overview of AI research areas and methodologies
- 2) Historical perspectives and milestones in AI
- 3) Ethical considerations in AI research and development

Day 2 Advanced AI Algorithms

- 1) Deep learning fundamentals: neural networks, backpropagation
- 2) Convolutional neural networks (CNNs) for computer vision
- 3) Recurrent neural networks (RNNs) for sequential data

Day 3 Natural Language Processing (NLP)

- 1) Basics of NLP: text preprocessing, tokenization, stemming
- 2) Sentiment analysis and opinion mining
- 3) Named entity recognition and text classification

Day 4 Reinforcement Learning

- 1) Introduction to reinforcement learning (RL)
- 2) Q-learning, deep Q-networks (DQN)
- 3) Policy gradients and actor-critic methods

Day 5 Computer Vision

- 1) Image classification and object detection
- 2) Semantic segmentation and instance segmentation
- 3) Transfer learning in computer vision tasks

Day 6 AI Applications in Healthcare

- 1) AI-driven diagnostics and medical imaging
- 2) Personalized medicine and treatment recommendation systems
- 3) Healthcare chatbots and virtual assistants

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College Code: R9

Day 7 AI in Finance and Business

- 1) Algorithmic trading and financial forecasting
- 2) Fraud detection and risk management
- 3) Customer relationship management (CRM) with AI

Curt

HOD-CSE

Dr. CH. V. PRASAD KIRANJAN
Head of the Department
Computer Science and Engineering
TKR Educational Society Engineering College
Medbowli, Meerpet, Balapur(M), Hyderabad - 500097



[Signature]
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(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that MUNJA RAKSHITHA bearing roll number 19R91A05A3 of TEEGALA KRISHNAREDDY ENGINEERING COLLEGE has been completed the course on "Research & Application perspectives in Artificial intelligence-CSE", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 11-04-2022 to 18-04-2022



CH

HOD-CSE

(Dr.CH. V. Phani krishna)

PRINCIPAL
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Meerpet, Hyderabad

PRINCIPAL-TKREC

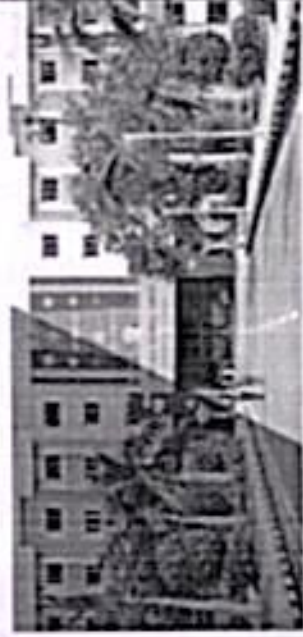
(Dr.K. Venkata Murali Mohan)

**One week Workshop
on
Introduction to Packet Tracer**

Objective

To familiarize them with networking fundamentals through hands on experience, enabling them to design, simulate, and troubleshoot networks using Cisco Packet Tracer software effectively.

Date: 19-09-2022 to 25-09-2022



About TKREC:

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About Department:

VISION

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MISSION

Impart adequate employability skills to make the students industry ready with global standards.
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TKREC

OUR STRENGTH

Chief Patron:

**Hon Mr. Teegala Krishna Reddy
Chairman, TKRES**

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Secretary, TKRES

Co-Patron:

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

**Vice-Principal & Dean of Academic
s:**

Dr. K. M. V. Madan Kumar

Convenor:

Dr. J. Praveen Kumar

HOD of IT

Coordinators:

**Mrs. E. Aruna
Assistant Professor, TKREC**

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College Code: R9

Syllabus of Introduction to Packet Tracer:

Date: 15-09-2022

This course aims to introduce students to the fundamentals of networking and provide hands-on experience with Cisco Packet Tracer software. By the end of the course, students will be able to design, configure, and troubleshoot basic network topologies using Packet Tracer.

Day 1: Introduction to Networking Basics

1. Overview of computer networks
2. Introduction to networking devices: routers, switches, hubs, etc.
3. OSI model and TCP/IP protocol suite

Day 2: Introduction to Packet Tracer

1. Understanding Packet Tracer interface
2. Creating a new network topology
3. Adding and configuring devices: routers, switches, PCs, servers
4. Connecting devices using different types of cables

Day 3: Basic Network Configuration

1. Configuring IP addresses and subnet masks
2. Configuring default gateway
3. Configuring DHCP on routers and servers
4. Verifying network connectivity using ping and traceroute

Day 4: VLANs and Inter-VLAN Routing

1. Understanding VLANs (Virtual Local Area Networks)
2. Configuring VLANs on switches
3. Configuring trunk links between switches
4. Configuring inter-VLAN routing using routers

Day 5: Routing Configuration

1. Configuring static routing
2. Configuring dynamic routing protocols: RIP, OSPF
3. Verifying routing tables and neighbor adjacencies
4. Troubleshooting routing issues

Day 6: Network Security and Services

1. Configuring access control lists (ACLs)
2. Implementing port security on switches
3. Configuring NAT (Network Address Translation)
4. Configuring basic firewall rules

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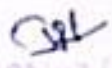
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College Code: R9

Day 7: Troubleshooting and Project Work

1. Troubleshooting common network issues: connectivity problems, DHCP failures, etc.
2. Reviewing and refining network configurations
3. Group project: Designing and implementing a network topology based on given requirements
4. Presentation of project findings and lessons learned


Head of the Department
Information Technology
Teegala Krishna Reddy Engineering Collg.,
Medbowli, Meerpet



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Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **YASH WASNIK** bearing roll number **20R91A1247 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Introduction to Packet Tracer**", organized by Department of **Information Technology, Teegala Krishna Reddy Engineering College, Hyderabad, from 19-09-2022 to 25-09-2022.**

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Accredited by AICTE, NBA, ASI, ISO 9001:2015, ISO 14001:2015, ISO 45001:2018
Approved by Government of Andhra Pradesh, Hyderabad

One week Workshop on Entrepreneur Journey in Digital StartUp

Objective:

To equip the students with the skills, knowledge, and mindset needed to launch and manage successful digital startups. Through interactive sessions and real-world case studies, students will learn about ideation, business planning, funding, and growth strategies.

Date: 21-03-2023 to 28-03-2023

**Organised by
Department of
Information Technology**

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About Department

VISION

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MISSION

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Secretary, TKRES

Co-Patron:

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr.K.V.Murali Mohan

Vice Principal & Dean of Academics:

Dr.K.M.V.Madan Kumar

Convenor:

Dr.J.Praveen Kumar

HOD of IT

Coordinators:

Dr. M.Ramu

Associate Professor, TKREC

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College Code: R9

Syllabus of Entrepreneur Journey in Digital Start Up Date: 17-03-2023

Introduction to Entrepreneurship and Digital Startups

1. Definition of entrepreneurship
2. Characteristics of successful entrepreneurs
3. Importance of digital startups in the modern economy
4. Overview of the entrepreneurial journey in the digital era

Ideation and Validation

1. Techniques for generating business ideas
2. Importance of problem-solving and innovation
3. Market research methods for validating business ideas
4. Identifying target customers and understanding their needs

Business Model Canvas

1. Introduction to the Business Model Canvas (BMC)
2. Key components of BMC: Value proposition, customer segments, channels, revenue streams, etc.
3. Workshop: Designing a BMC for a digital startup idea
4. Analyzing and refining the BMC based on feedback

Lean Startup Methodology

1. Principles of lean startup approach
2. Building a Minimum Viable Product (MVP)
3. Conducting experiments and gathering customer feedback
4. Workshop: Developing an MVP for a digital startup concept

Digital Marketing Strategies

1. Overview of digital marketing channels (social media, content marketing, SEO, etc.)
2. Developing a digital marketing strategy for startups
3. Workshop: Creating a digital marketing plan for a digital startup
4. Measuring and analyzing digital marketing performance metrics

Financial Management for Startups

1. Basics of financial planning and budgeting
2. Revenue models for digital startups (subscription, freemium, advertising, etc.)
3. Fundraising options for startups (bootstrapping, crowdfunding, venture capital, etc.)
4. Workshop: Financial modeling for a digital startup

Pitching and Presentation Skills

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

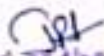
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College Code: R9

1. Crafting an effective elevator pitch
2. Structuring a startup pitch deck
3. Presentation techniques and storytelling for impact
4. Pitching practice session: Students present their startup ideas to peers and receive feedback


Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **B CHAITNAYA** bearing roll number **20R91A1206** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Entrepreneur Journey in Digital Startup**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **21-03-2023** to **28-03-2023**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Accredited by AICTE, Government of Andhra Pradesh, India
Approved by Government of Andhra Pradesh, India

One Week Workshop on Automation Testing and DevOps

Objective:

provide comprehensive knowledge
and hands-on experience in integrating
automated testing within DevOps
practices.

Date: 12-09-2022 to 18-09-2022

Organised By

Department of
Information Technology



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About Department:

VISION

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MISSION

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Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

OUR STRENGTH

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Chairman, TKRES

Patron:

Dr. Teegala Harinath Reddy

Secretary, TKRES

Co-Patron:

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean of Academics

Dr. K. M. V. Madan Kumar

Convenor:

Dr. J. Praveen Kumar

HOD of IT

Coordinators:

Mr. J. Sudheer Kumar

Assistant Professor, TKREC

TKRES

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College Code: R9

Syllabus of Automation testing and Devops:

Date: 08-09-2022

Introduction to Automation Testing

1. Overview of automation testing principles and benefits
2. Different types of automated tests: unit, integration, and end-to-end
3. Introduction to popular automation testing tools and frameworks
4. Hands-on: Setting up the testing environment with Selenium WebDriver

Advanced Automation Testing Techniques

1. Deep dive into automation testing frameworks: Selenium, Appium, and Cypress
2. Best practices for writing maintainable and scalable automated test scripts
3. Data-driven testing and parameterization
4. Hands-on: Writing and executing advanced automated test scripts using Selenium WebDriver

Introduction to DevOps

1. Understanding DevOps culture, principles, and practices
2. Role of automation in DevOps workflows
3. Continuous integration (CI) and continuous delivery (CD) concepts
4. Version control systems: Git and GitHub basics

Implementing DevOps Practices (Part 1)

1. Configuring CI/CD pipelines using Jenkins, GitLab CI/CD, or CircleCI
2. Automated build, test, and deployment processes
3. Code review and automated testing within CI/CD workflows
4. Hands-on: Setting up a CI/CD pipeline for a sample project

Implementing DevOps Practices (Part 2)

1. Infrastructure as Code (IaC) principles and tools: Terraform and Ansible
2. Containerization using Docker for consistent and reproducible environments
3. Orchestration and management of containerized applications using Kubernetes basics
4. Hands-on: Implementing IaC and containerization in a DevOps workflow

Advanced DevOps Topics and Best Practices

1. Scaling DevOps: managing large-scale deployments and distributed teams
2. Monitoring and logging: tools and best practices for tracking application performance
3. DevOps security practices: securing CI/CD pipelines and containerized environments
4. DevOps case studies and best practices sharing
5. Final project: Participants work on a comprehensive project integrating automation testing and DevOps practices

Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



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(UGC-AUTONOMOUS)

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Department of Information Technology

Certificate of Completion

This is to certify that **BUDHARAM SHIRDEESH** bearing roll number **19R91A1210** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Automation Testing and Devops**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **12-09-2022** to **18-09-2022**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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ACTIVITY NO. 1, MAHATMA JAYAWALKAR AVE, HYDRABAD-500032
Phone: 0846-2610000, 2610001, 2610002, 2610003, 2610004

One week Workshop on Machine Learning using Python

Objective

Fundamental knowledge and practical skills in machine learning using Python, enhancing their technical competence and preparing them for advanced studies and industry applications.

Date: 17-10-2022 to 23-10-2022

Organised by
Department of IT



About TKREC:

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Abot Department:

VISION

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Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice-Principal & Dean of Academics:

Dr. K.M.V. Madan Kumar

Convenor:

Dr. J. Praveen Kumar

HOD of IT

Coordinators:

Mrs. N. Priyanka

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College Code: R9

Syllabus of Machine Learning using Python:

Date: 14-10-2022

Introduction to Machine Learning

1. Overview of machine learning concepts, types of machine learning algorithms (supervised, unsupervised, and reinforcement learning)
2. Introduction to Python programming language and its libraries for machine learning (NumPy, Pandas, Matplotlib)
3. Hands-on session: Setting up Python environment and basic data manipulation using Pandas

Supervised Learning Algorithms

1. Overview of supervised learning algorithms: regression and classification
2. Linear regression, logistic regression, and decision trees
3. Model evaluation metrics: accuracy, precision, recall, F1-score
4. Hands-on session: Implementing supervised learning algorithms for a sample dataset using scikit-learn

Unsupervised Learning Algorithms

1. Overview of unsupervised learning algorithms: clustering and dimensionality reduction
2. K-means clustering, hierarchical clustering, and principal component analysis (PCA)
3. Evaluating clustering algorithms: silhouette score, inertia
4. Hands-on session: Applying unsupervised learning algorithms to analyze and visualize datasets

Model Evaluation and Validation

1. Cross-validation techniques: k-fold cross-validation, stratified cross-validation
2. Hyperparameter tuning using grid search and random search
3. Overfitting, underfitting, and bias-variance tradeoff
4. Hands-on session: Evaluating and fine-tuning machine learning models for improved performance

Introduction to Deep Learning

1. Overview of deep learning concepts and neural networks
2. Introduction to TensorFlow and Keras libraries for deep learning

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College Code: R9


3. Building and training a simple neural network for image classification
4. Hands-on session: Implementing a neural network using TensorFlow and Keras for a sample image classification task

Advanced Topics in Machine Learning

1. Transfer learning and fine-tuning pre-trained models
2. Time-series analysis and forecasting using machine learning
3. Introduction to natural language processing (NLP) and text classification
4. Hands-on session: Exploring advanced machine learning techniques for specific use cases

Project Work and Presentation

1. Participants work on a machine learning project of their choice, applying the concepts and skills learned throughout the course
2. Project presentations: Participants showcase their projects and discuss their methodologies, results, and insights


Head of the Department
Information Technology
TeeGala Krishna Reddy Engineering College
Medbowli, Meerpet



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(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **AANCHAL THAKUR** bearing roll number **20R91A1201** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Machine Learning using Python**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **17-10-2022** to **23-10-2022**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Approved by AICTE, New Delhi, in 2008. Affiliated to JNTU,
Kakinada. Minimum Eligibility: B.Tech. in any branch.

One week workshop on AI for Cyber Security Objective

It provides a comprehensive understanding of how artificial intelligence techniques are applied to enhance cybersecurity measures.

Date: 20-02-2023 to 26-02-2023

Organizing by Department of Information Technology



About TKREC:

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Dr. K.V. Murali Mohan

Vice-Principal & Dean of Academics:

Dr. K.M.V. Madan Kumar

Convener:

Dr. J. Praveen Kumar

HOD of IT

Coordinators:

Mrs E. Aruna

Assistant Professor, TKREC

Mrs. A. Vijetha

Assistant Professor, IT, TKREC

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College Code: R9

Date: 17-02-2023

Syllabus of AI for Cyber Security:

1. Introduction to Cybersecurity and AI

Overview of cybersecurity threats and challenges

Introduction to artificial intelligence and machine learning concepts

Applications of AI in cybersecurity: threat detection, malware analysis, and vulnerability assessment

Hands-on session: Setting up the environment for AI-based cybersecurity experiments

2. Threat Detection using AI

Techniques for threat detection using supervised and unsupervised learning algorithms

Intrusion detection systems (IDS) and network traffic analysis

Behavioral analysis and anomaly detection for identifying suspicious activities

Hands-on session: Implementing a basic intrusion detection system using machine learning algorithms

3. Malware Analysis with AI

Overview of malware types and behaviors

Static and dynamic analysis techniques for malware detection

Introduction to malware classification and clustering using machine learning

Hands-on session: Analyzing and classifying malware samples using AI-based techniques

4. AI for Anomaly Detection

Understanding anomalies and their significance in cybersecurity

Time-series analysis and anomaly detection using statistical methods and machine learning

Applications of AI in detecting insider threats and unusual user behavior

Hands-on session: Building an anomaly detection system for network traffic analysis

5. Incident Response and AI

Introduction to incident response processes and frameworks

Role of AI in automating incident detection, response, and remediation

Leveraging AI for threat hunting and real-time monitoring of security incidents

Hands-on session: Developing an AI-powered incident response playbook

6. Adversarial Machine Learning and AI Security

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTUH
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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Overview of adversarial machine learning attacks and defenses

Techniques for securing AI models against evasion, poisoning, and inference attacks

Privacy-preserving AI techniques for sensitive data protection

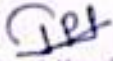
Hands-on session: Adversarial attacks and defenses in machine learning models for cybersecurity

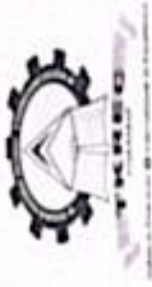
7. Project Work and Presentation

Participants work on a cybersecurity project integrating AI techniques to solve a specific security challenge

Project presentations: Participants showcase their projects, discussing their methodologies, results, and insights

Course conclusion: Recap of key learnings, feedback collection, and certificate distribution


Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **TAKKALA JAYANTH** bearing roll number **19R91A1241** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**AI for Cyber Security**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **20-02-2023** to **26-02-2023**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)

OUR STRENGTHH

Chief Patron

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy

Secretary, TKRES

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K. M. V. Madan Kumar

Convener:

Mr. V. Surya Narayana

Prof & HOD of MBA

Coordinator:

Mr. P. Deepak Goud

Assistant Professor, MBA ,TKREC

About TKREC:

TKR Engineering College – a modern temple of learning, an Off shoot of the TKR Educational Society was established in the year 2002 in a sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

TKREC MBA was established in the year 2007 with the approval of AICTE, New Delhi offers two year full-time MBA Programme, which is affiliated to Jawaharlal Nehru Technological University, Hyderabad with an intake of 60 in Management. The institute has carved a niche for itself, within a short period of time, among a host of management institutions. To

accomplish the mission of Indian in values & International in excellence, with excellent infrastructure and competent faculty, TKREC

MBA is imparting quality management education. The prime focus is on application of knowledge, development of positive attitude, diverse skills and competencies among the students. Pedagogy includes lectures, case discussions, Role-plays and simulation..

VISION:

Striving for an outstanding value based quality education, developing entrepreneurial skills to become global managers and continue to hold passion for knowledge-sharing in all facets of management education, embedding Indian culture and societal values.

A Value-Added Course

On

**Corporate Skills for Executives
(06-02-2023 to 10-02-2023)**

Organized by

MR.V.Surya Narayana



Department of MBA

**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

**(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)**

Resource Person: Mr. G. Suresh Reddy



W/PRINCIPAL
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(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Corporate Skills for Executives

Day 1: Leadership in the Corporate Context

1. Understanding leadership styles and theories
2. Developing personal leadership strengths
3. Leading and motivating teams effectively

Day 2: Effective Communication Skills

1. Principles of effective communication
2. Oral and written communication techniques
3. Communicating with different stakeholders
4. Employees, clients, investors

Day 3: Strategic Thinking and Planning

1. Introduction to strategic management concepts
2. Analyzing the competitive landscape and market trends
3. Developing and implementing strategic plans.

Day 4: Decision-Making in the Corporate Environment

1. Decision-making process
2. Identifying goals, gathering information
3. Ethical considerations in decision-making
4. Risk assessment and mitigation strategies

Day 5: Ethics and Professionalism

1. Ethical principles in business conduct
2. Integrity and transparency in decision-making
3. Corporate social responsibility and sustainability.

HOD - MBA

Teegala Krishna Reddy Engg. College

S 8, Medbowli, Meerpet,

Saracnagar, Hyderabad - 500079, A.P.

PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of MBA

Certificate of Completion

This is to certify that ANNEM SARANYA bearing roll number 21R91E0004 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "Corporate Skills for Executives", organized by Department MBA Teegala Krishna Reddy Engineering College, Hyderabad, from 06-02-2023 to 10-02-2023.

HOD-MBA

(Mr.V.Surya Narayana)

PRINCIPAL-TKREC

(Dr.K.Venkata Murali Mohan)

Principal
TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 500097



OUR STRENGTHH

Chief Patron

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy
Secretary, TKRES
Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K. M. V. Madan Kumar

Convenor:

Mr. V. Surya Narayana
Prof & HOD of MBA

Coordinator:

Mr. P. Deepak Goud
Assistant Professor, MBA, TKREC

About TKREC:

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About Department:

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VISION:

Striving for an outstanding value based quality education, developing entrepreneurial skills to become global managers and continue to hold passion for knowledge-sharing in all facets of management education, embedding Indian culture and societal values.

A Value-Added Course

On

**Business Sustainability Management
(24-04-2023 to 28-04-2023)**

Organized by
MR.V.Surya Narayana



Department of MBA
**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)

Resource Person: Mr. P. Gangadhar Rao



PRINCIPAL
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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Business Sustainability Management

Day 1: Introduction to Business Sustainability

1. Definition and principles of sustainability
2. Triple bottom line approach
3. Business case for sustainability

Day 2: Sustainability Assessment and Metrics

1. Sustainability frameworks and standards
2. Sustainability frameworks and standards
3. Key performance indicators (KPIs) for sustainability.

Day 3: Integrating Sustainability into Business Strategy

1. Sustainable business models
2. Sustainability in corporate
3. Strategy and governance
4. Stakeholder engagement and materiality assessment.

Day 4: Sustainable Operations and Supply Chain Management

1. Greening the supply chain
2. Sustainable procurement practices
3. Resource efficiency and waste management

Day 5: Finance and Investment for Sustainability

1. Sustainable finance and investment strategies
2. Environmental, social, and governance (ESG) criteria
3. Impact investing and social entrepreneurship

A handwritten signature in black ink, likely belonging to the Head of Department (HOD) for the MBA program.

HOD - MBA

Teegala Krishna Reddy Engg. College
S 5 Medbowli, Meerpet,
Seroornagar, Hyderabad - 500079. A.P.

A handwritten signature in green ink, likely belonging to the Principal of the college.

PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of MBA

Certificate of Completion

This is to certify that **MADEELA ADWAIITHI** bearing roll number **21R91E0022 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Business Sustainability Management**", organized by Department **MBA Teegala Krishna Reddy Engineering College, Hyderabad, from 24-04-2023 to 28-04-2023.**

HOD-MBA

(Mr.V.Surya Narayana)



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.

PRINCIPAL-TKREC

(Dr.K.Venkata Murali Mohan)

OUR STRENGTH

Chief Patron

Hon. Mr. Teegala Krishna Reddy

Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy

Secretary, TKRES

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice-Principal & Dean:

Dr. M.V. Madan Kumar

Convener:

Mr. M.D. Muneeruddin Khagga

Professor & HOD of CE

Coordinator:

Mr. N. Chandra Gupta

Assistant Professor, CE, TKREC

About TKREC:

TKR Engineering College - a modern temple of learning, an off shoot of the TKR Educational Society was established in the year 2002 in a sprawling lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

The department was established in the year of 2009 with a intake of 66 students now its 120. The Department offers a four year UG course leading to B.Tech in Civil Engineering. The department has energetic and experienced faculty (Industrial & Teaching) for the benefit of the students and to promote R&D. The department has conducted National Conferences, Workshops, Seminars, Guest lecture, Industrial & Field Visits, etc to update the Technical knowledge of students. The department has fully equipped laboratories and all infrastructures to recognize the achievements.

VISION:

To impart technical knowledge in the field of civil engineering and expose the graduate students to the technology.

A Value-Added Course:

On

Financial Literacy

(22-03-2022 to 24-03-2022)

Organized by

Mr. M.D. Muneeruddin Khagga



Department of CIVIL

TEEGALA KRISHNA

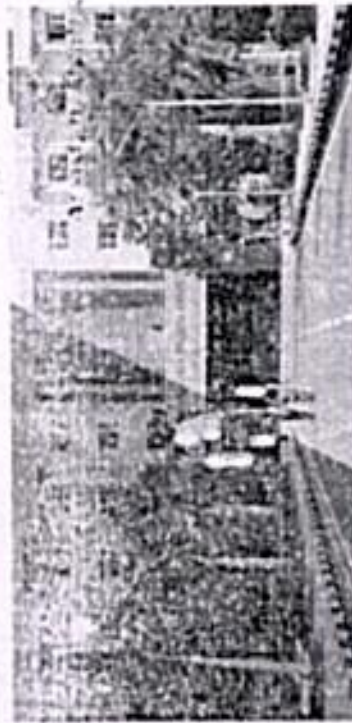
REDDY ENGINEERING

COLLEGE

(Approved by AICTE, accredited by NBA & NAAC - 'A', Affiliated to JNTUH,

Hyderabad, Telangana)

Resource Person: Ms. Anuchama Koram



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Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 500017.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Financial Literacy

Day 1: Introduction to Financial Literacy

1. Understanding the importance of financial literacy
2. Basic financial concepts and terminology
3. Overview of personal finance goals and objectives

Day 2: Budgeting and Money Management

1. Principles of budgeting and cash flow management
2. Strategies for tracking expenses and identifying areas for saving

Day 3: Savings and Investment

1. Introduction to different types of investments (stocks, bonds, mutual funds, etc.)
2. Risk and return trade-offs in investment decisions

Day 4: Debt Management and Credit

1. Types of debt (credit cards, loans, mortgages, etc.)
2. Understanding credit scores and reports
3. Strategies for managing and reducing debt

Day 5: Financial Planning and Goal Setting

1. Setting SMART financial goals
2. Developing a personal financial plan
3. Retirement planning, insurance, and estate planning basics

Day 6: Consumer Awareness and Financial Products

1. Understanding financial products and services (banking, loans, insurance, etc.)
2. Identifying and avoiding financial scams and frauds
3. Comparing financial products and services

Day 7: Taxation Basics

1. Introduction to taxation (income tax, property tax, etc.)
2. Understanding tax deductions and credits
3. Strategies for tax planning and optimization

Day 8: Investment Strategies and Risk Management

1. Investment strategies for different financial goals
2. Diversification and portfolio management
3. Assessing and managing investment risks

Handwritten signature in green ink.

Handwritten signature in purple ink.
HEAD OF THE DEPARTMENT,
Department of Civil Engineering
Teegala Krishna Reddy Engineering College,
Meerpet, Saroor Nagar, Hyderabad-97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Civil Engineering

Certificate of Completion

*This is to certify that **AAVULA SAI SAGAR** bearing roll number **19R91A0101** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Financial Literacy**", organized by Department of Civil Engineering, Teegala Krishna Reddy Engineering College, Hyderabad from **22th -30th March, 2022**.*



[Signature]

HOD-CE

(MD.MUNEERUDDIN KHAN)

[Signature]

PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)

Medbowli, Meerpet, Hyderabad - 97-PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(Sponsored by TNR Educational Society, Approved by
AICTE, Affiliated by JNTU-H, Accredited by NBA &
SAAC)

Madhush, Mcsrpet, Sainonagar, Hyderabad-500097
Phone: 040-2492034 Fax: +91-40-2492555
Email: tkredy@tkredy.ac.in

About the Institution:

Teegala Krishna Reddy Engineering College (TKREC) was founded in the year 2005 by TNR Educational Society established in 2001 under the dynamic leadership of Sri. Teegala Krishna Reddy, M.A., with prime motto of educating people with strong basic knowledge. Teegala Krishna Reddy Engineering College (TKREC) was established with a vision of imparting knowledge and instilling skills to the aspiring students in the fields of Engineering, Technology, Science and Management to face the emerging challenges of the society. The college offers diploma courses in EEE, FCC, CME, CE and UG courses in CEE, ICE, CSE, IT and PG courses in M.TECH and M.B.A.

About the Department:

The Department of Electrical and Electronics Engineering was started in 2005, with intake of 60. A vision of striving to provide quality education and train students in the contemporary technologies, to meet the needs and demands of global industry shaping them into skilled engineers imbued with professional ethics. The department is run by well qualified and experienced faculty committed to train students realising the importance of talent.



ENVIRONMENTAL SCIENCE

VALUE ADDED COURSE

OF

ENVIRONMENTAL SCIENCE

From 20th SEPTEMBER to 25th
SEPTEMBER, 2021

About the course:

Environmental Science combines physical, biological and chemical sciences to study the environment and discover solutions to environmental problems such as climate change, pollution, and loss of biodiversity and the sustainable provision of energy, food, and clean water.

Organising Committee:
Chief Patron: Sri. Teegala Krishna Reddy,
CHAIRMAN, TNR.E.
Patrons (Dr. T. Harinarath Reddy),
SECRETARY, TNR.E.,
Sri. Amarath Reddy,
TREASURER, TNR.E.,
Dr. S. R. Ramakrishna
DIRECTOR, TNR.E.

Chairman: Dr. P. Kam Mohan Rao
PRINCIPAL, TKREC.

Advisory
Committee: K. Sankararajasekhar,
PROF., Aamp; DEAN (R&mp;D)
A.S. Prathap Kumar

Venue & Duration:

Auditorium: R9

Timing: 10:00 am to 10:00 pm

For further information contact:

Coordinator

Mr. B. Rajasekh

Asst. Prof., EEE Dept.,

TNR. 500097.

T.MADHU BARI,

Head of the Department - EEE, TKREC

Ph. No. +91-40-2492034

E-Mail: ecodept@tkredy.ac.in

Web: www.tkredy.ac.in



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Prof. Dr. P. Kam Mohan Rao, Hyderabad - 97.

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(UGC-Autonomous)

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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097

Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



College Code: R9

Syllabus of Value-added Course on Environmental science

chapter - I

Ecosystems: Definition, Scope, and Importance of ecosystem. Classification, structure, and function of an ecosystem, Food chains, food webs, and ecological pyramids. Flow of energy. Biogeochemical cycles, Bioaccumulation, Bio magnification, ecosystem value, services and carrying capacity, Field visits.

chapter- II

Natural Resources: Classification of Resources: Living and Non-Living resources, water Resources: use and over utilization of surface and ground water, floods and droughts, Dams: benefits and problems. Mineral resources: use and exploitation, environmental effects of extracting and using mineral resources, Land resources: Forest resources, Energy resources: growing energy needs renewable and non-renewable energy sources, use of alternate energy source, case studies.

chapter - III

Biodiversity and Biotic Resources: Introduction, Definition, genetic, species and ecosystem diversity. Value of biodiversity; consumptive use, productive use, social, ethical, aesthetic and optional values. India as a mega diversity nation, Hot spots of biodiversity. Field visit. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts; conservation of biodiversity: In-Situ and Ex-sit conservation. National Biodiversity act.

K. V. Reddy

PRINCIPAL

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.

T. R.
HOD

Electrical and Electronics Engineering
TKR Engineering College
Meerpet, Hyderabad-500 079



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering

Certificate of Completion

This is to certify that NITESH LAL bearing with roll number 18R95A0227 of Teegala Krishna Reddy Engineering College has been completed the course on "ENVIRONMENTAL SCIENCE", Organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 20th-25th September, 2021.

HOD-EEE
(T. Madhu Babu)

PRINCIPAL-TKREC
(Dr. K. Venkata Murali Mohan)
PRINCIPAL



Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.



TEGALA KRISHNA REDDY ENGINEERING COLLEGE

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AICTE, Affiliated by JNTU, Accredited by NBA &
NAAC)

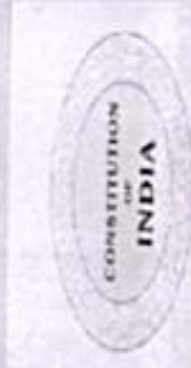
Meerpet, Meerpet, Sarowarpet, Hyderabad-500097
Phone: 040-24992438 Fax: 993-040-24992555
Email: tkrc@rediffmail.com Website: www.tkrec.ac.in

About the Institution:

Tegala Krishna Reddy Engineering College (TKREC) was founded in the year 2005 by TNR Educational Society established in 2001 under the dynamic leadership of Sri. Tegala Krishna Reddy, M.A., with prime motto of educating people with strong basic know ledge. Tegala Krishna Reddy Engineering College (TKREC) was established with a vision of imparting knowledge and instilling skills in the aspiring students in the fields of Engineering, Technology, Science and Management to face the emerging challenges of the society. The college offers diploma courses in EEE, ECE, CME, CE and UG courses in CE, EEE, ECE, CSE, IT and PG courses in M.TECH and M.B.A.

About the Department:

The department of Electrical and Electronics Engineering was started in 2005, with intake of 60. A vision of striving to provide quality education and train students in the contemporary technologies, to meet the needs and demands of global industry shaping them into skilful engineers imbued with professional ethics. The department is run by well qualified and experienced faculty committed to train students realizing the importance of lab



VALUE ADDED COURSE OF

CONSTITUTION OF INDIA

From AUGUST 9TH to AUGUST 14TH
2021

About the course:

The course on constitution of India highlights key features of Indian Constitution, like directive principles of state policy, fundamental rights and duties, and the various organs of constitution

Organizing Committee:
Chief Patron: Sri. Tegala Krishna Reddy,
CHAIRMAN, TNR.E.S.
Patron: Dr. T. Harinath Reddy,
SECRETARY, TNR.E.S.
TREASURER, TNR.E.S.
Dr. S.R. Ramaswamy
DIRECTOR, TNR.E.S.

Chairman: Dr. P. Ravi Mohan Rao
PRINCIPAL, TKREC.

Advisory
Committee: K. Sundarajulu,
PROF. &amp;amp; DEAN (B&amp;amp;D)
A.V. Prathap Kumar

Venue & Duration:

Auditorium: R9
Timing: 10:00 am to 2:00 pm
For further information contact:
Coordinator

Mr. B. Ramesh,
Asst. Prof. EEE
Dept. 2306/206616,
T-MADHU BABU,

Head of the Department - EEE, TKREC
Ph. No: +91-8106476450
E-Mail: eeedep@tkrec@gmail.com
Web: www.tkrec.ac.in



TEGALA KRISHNA REDDY
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Meerpet, Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



College Code: R9

Syllabus of Value-added Course on Constitution of India


Unit –I: Constitution: Meaning & Constitutionalism, Historical perspective - : 1909 Act, 1919 Act & 1935 Act, Salient features & nature of the Constitution,

Unit –II : Fundamental Rights: Introduction & its scheme, Right to Equality (Art.14), Right to Fundamental Freedoms (Art. 19), Right to Life (Art. 21), Directive Principles of State Policy: importance and implementation, Fundamental Duties and its legal status.

Unit –III : Government: Union & State – Executive & Legislature, composition, powers and functions, Local Self Governments – Panchayat Raj Institutions & Urban Local Bodies (Municipalities). Statutory Institutions: Elections-Election Commission of India, National Human Rights Commission, National Commission for Women.

Unit –IV: Federal structure & distribution of legislative and financial powers between the Union and the States.


HOD
Electrical and Electronics Engineering
T K R Engineering College
Meerpet, Hyderabad-500 079


PRINCIPAL
Teegala Krishna Reddy Engineering College
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Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering Certificate of Completion

This is to certify that **PAPAGALLA SIDDARTHA** bearing with roll number **18R91A0232** of Teegala Krishna Reddy Engineering College has been completed the course on "**CONSTITUTION OF INDIA**", organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 9th -14th August, 2021.

HOD-EEE
(T. Madhu Babu)

PRINCIPAL-TKREC
(Dr. K. Venkata Murali Mohan)



Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(Sponsored by TNR Educational Society, Approved by
AICTE, Affiliated by JNTUH, Accredited by NBA &
NAAC)

Meerpet, Meerpet, Sammorugur, Hyderabad-500097
Phone: 040-24092838 Fax: +91-040-24092555
Email: tkrc@rediffmail.com Website: www.tkrec.ac.in

About the Institution:

Teegala Krishna Reddy Engineering College (TKREC) was founded in the year 2005 by TNR Educational Society established in 2001 under the dynamic leadership of Sri. Teegala Krishna Reddy, M.A., with prime motto of educating people with strong basic knowledge. Teegala Krishna Reddy Engineering College (TKREC) was established with a vision of imparting knowledge and instilling skills in the aspiring students in the fields of Engineering, Technology, Science and Management to face the emerging challenges of the society. The college offers diploma courses in EEE, ECE, CME, CE and UG courses in CE, EEE, ECT, CSE, IT and PG courses in M.TECH and M.B.A.

About the Department:

The department of Electrical and Electronics Engineering was started in 2005, with intake of 60. A vision of striving to provide quality education and train students in the contemporary technologies, to meet the needs and demands of global industry shaping them into skillful engineers imbued with professional ethics. The department is run by well qualified and experienced faculty committed to train students realizing the importance of latest



VALUE ADDED COURSE

OF

HUMAN VALUES & PROFESSIONAL ETHICS

From JULY 12th TO JULY 17th 2021

About the course:

The set of moral principles and standards that guide the behavior and conduct of legal professionals, it encompasses The values and obligations that lawyers and advocates must Uphold while practicing law

Organizing Committee:
Chief Patron: Sri. Teegala Krishna Reddy,
CHAIRMAN, TNR,
Patron: Dr. J. Harinath Reddy,
SECRETARY, TNR,
Sri. Amaravath Reddy,
TREASURER, TNR,
Dr. S. Ramesh Babu,
DIRECTOR, TNR,
Chairman: Dr. P. Rami Mahesh Babu
PRINCIPAL, TKREC,

Advisory
Committee: K. Sumanthara Raju,
PROF. & asst. DEAN (P&D)
A.V. Prathap Kumar

Venue & Duration:
Auditorium: R9
Timing: 10:00 am to 1:00 pm
For further information contact:
Coordinator
Mr. B. Ramiah,
Asst. Prof. EEE,
Dept., 7386706616,
T-MADHU BABU,
Head of the Department - EEE, TKREC
Ph. No: +91-040-24092550
E-Mail: coordinator@tkrec.ac.in
Web: www.tkrec.ac.in



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



College Code: R9

Syllabus of Value-added Course on HUMAN VALUES & PROFESSIONAL ETHICS.


Unit -I: HUMAN VALUES, Unit Syllabus :Morals, values and Ethics – Integrity – Work ethic – Service learning – Civic virtue – Respect for others – Living peacefully – Caring – Sharing – Honesty – Courage – Valuing time – Cooperation – Commitment – Empathy – Self-confidence – Character – Spirituality – Stress and Emotional management.

Unit -II: ENGINEERING ETHICS Unit Syllabus: Senses of 'Engineering Ethics' – Variety of moral issues – Types of inquiry – Moral dilemmas – Moral Autonomy – Kohlberg's theory – Gilligan's theory – Consensus and Controversy – Models of professional roles - Theories about right action – Self-interest – Customs and Religion – Uses of Ethical Theories.

Unit-III: ENGINEERING AS SOCIAL EXPERIMENTATION Unit Syllabus: Engineering as Experimentation – Engineers as responsible Experimenters – Codes of Ethics – A Balanced Outlook on Law.

Unit -IV: SAFETY, RESPONSIBILITIES AND RIGHTS Unit Syllabus: Safety and Risk – Assessment of Safety and Risk – Risk Benefit Analysis and Reducing Risk - Respect for Authority – Collective Bargaining – Confidentiality – Conflicts of Interest – Occupational Crime – Professional Rights – Employee Rights – Intellectual Property Rights (IPR) – Discrimination


HOD
Electrical and Electronics Engineering
TKR Engineering College
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Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering

Certificate of Completion

This is to certify that **K MANIKANTA** bearing with roll number **19R95A0210** of Teegala Krishna Reddy Engineering College has been completed the course on "**HUMAN VALUES & PROFESSIONAL ETHICS**", organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 12th - 17th July 2021.

HOD-EEE
(T.Madhu Babu)

PRINCIPAL-TKREC
(Dr.K. Venkata Murali Mohan)



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Co-Patron

Sri. T. Amarnath Reddy

Treasurer
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Dr. K.V. Murali Mohan

Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

Head of the Department

Dr.SK Umar Faruq

VISION

- To be a centre of learning in the field of Electronics and Communication Engineering to develop competent professionals for industry and to fulfill the needs of the society.

MISSION

- To impart quality education through effective teaching learning process
- To provide essential inter-disciplinary technology to make the students readily employable
- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOS)

- PEO1: The graduates will be able to adopt emerging technology for career development
- PEO2: The graduate will be able to develop professional skills and sense of social responsibility that paves them a way to secure key position
- PEO3: The graduate will have the capability to analyses real life problems of the society and produce innovative solutions

1 Week Value Added Course on " ROBOTICS "

14-02-2022

to

19-02-2022

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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 08-02-2022

Syllabus of Robotics

Introduction to Robotics

1. Definition and scope of robotics
2. Historical perspective and evolution of robotics
3. Applications of robotics in various industries

Robot Components and Kinematics

1. Basic components of a robot (sensors, actuators, controllers)
2. Robot kinematics: forward and inverse kinematics
3. Hands-on session: Introduction to robot programming using simulation software

Robot Perception and Sensors

1. Introduction to robot perception
2. Types of sensors used in robotics (proximity sensors, vision sensors, tactile sensors)
3. Hands-on session: Sensor interfacing and data acquisition

Robot Control Systems

1. Overview of robot control systems (open-loop vs. closed-loop control)
2. PID controllers and their applications in robotics
3. Hands-on session: Programming robot control algorithms

Robot Planning and Navigation

1. Path planning algorithms (Dijkstra's algorithm, A* algorithm)
2. Localization and mapping techniques (SLAM)



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College Code: R9

3. Hands-on session: Implementing navigation algorithms on a mobile robot platform.

Advanced Topics in Robotics

1. Introduction to robot manipulators and robotic arms
2. Robot learning and adaptive control
3. Emerging trends in robotics (soft robotics, swarm robotics, human-robot interaction)

Project Showcase and Evaluation

1. Participants presented their projects developed during the course.
2. Evaluation of projects based on creativity, functionality, and technical proficiency.
3. Certificate distribution to participants who successfully completed the course.

Ranga
HOD ECE

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M. H. H. H.
PRINCIPAL

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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **BURRA AKHIL** bearing roll number **18R91A0460** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "ROBOTICS", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **14-02-2022** to **19-02-2022**

HOD-ECE

(Dr. SK. UMAR FARUK)



PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)
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Dr. K.V. Murali Mohan

Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

Head of the Department

Dr.SK Umar Faruq

VISION

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MISSION

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- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

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- PEO3: The graduate will have the capability to analyse real life problems of the society and produce innovative solutions



1 Week Value Added Course on

EMBEDDED SYSTEM WITH 8051
MICROCONTROLLER USING
EMBEDDED C

13-12-2021

to

18-12-2021

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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 04-12-2021

Syllabus of embedded systems 8051 microcontroller using embedded C

1. Understanding the Requirements:

- Define the requirements of your embedded system. What is its purpose? What inputs will it receive, and what outputs will it produce?

2. Selecting Hardware:

- Choose the appropriate 8051 microcontroller variant based on your project requirements. Consider factors such as CPU speed, memory, I/O capabilities, and available peripherals.

3. Setting Up Development Environment:

- Install the necessary software tools for embedded development, including an Integrated Development Environment (IDE), compiler, and programmer/debugger.
- Popular IDEs for 8051 development include Keil μ Vision, SDCC (Small Device C Compiler), and Atmel Studio (for Atmel variants of 8051).

4. Writing Embedded C Code:

- Start by writing the firmware in embedded C. Define the main functionalities of your system, including initialization routines, input handling, processing logic, and output control.
- Use appropriate libraries and header files to access hardware peripherals such as GPIOs, timers, UART, SPI, and ADC.

5. Peripheral Configuration:

- Configure the microcontroller's peripherals according to your project requirements. This involves setting up GPIO pins, configuring timers and interrupts, initializing communication interfaces (UART, SPI, I2C), and configuring analog-to-digital converters (ADC).



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6. Programming Logic:

- Implement the core logic of your embedded system using C programming constructs. This may involve tasks such as data processing, control algorithms, state machines, and communication protocols.

7. Testing and Debugging:

- Test your code on the hardware platform to verify its functionality and performance.
- Use debugging tools provided by your IDE to identify and fix any errors or unexpected behavior.
- Implement appropriate error handling and debugging features in your code to aid troubleshooting during development and deployment.

8. Optimization and Refinement:

- Optimize your code for performance, memory usage, and power consumption as needed.
- Refine your design based on testing results and user feedback, making any necessary adjustments to improve reliability and usability.

9. Documentation and Maintenance:

- Document your embedded system design, including hardware schematics, firmware architecture, and software source code.
- Maintain clear and organized code documentation to facilitate future development, debugging, and troubleshooting.

10. Deployment and Integration:

- Once the firmware is tested and validated, integrate the embedded system into the target hardware or product.
- Ensure proper integration with other system components and interfaces, such as sensors, actuators, displays, and communication networks.



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By following these steps, you can effectively design and develop an embedded system using the 8051 microcontroller and embedded C programming language. Remember to consider factors such as hardware constraints, real-time requirements, and system reliability throughout the development process.


HOD/ECE

Dr. S. D. M. FARUK

Teegala Krishna Reddy Engineering College
Medbowli Meerpet Hyderabad-97


PRINCIPAL

DR. K. VENKATA MURALI MOHAN

PRINCIPAL

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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that GOPU REVANTH REDDY bearing roll number 18R91A0472 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "EMBEDDED SYSTEM WITH 8051 MICROCONTROLLER USING EMBEDDED C", organized by Department of ELECTRONICS AND COMMUNICATION ENGINEERING, Teegala Krishna Reddy Engineering College, Hyderabad, from 13-12-2021 to 18-12-2021

[Signature]

HOD-ECE

(Dr. SK. UMAR FARUK)



[Signature]

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1 Week Value Added Course on
"INTRODUCTION TO PROGRAMMING
WITH MATLAB"

03-01-2022
to
08-01-2022

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VISION

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- To provide essential inter-disciplinary technology to make the students readily employable
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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 30-12-2021

Syllabus on Introduction to Programming with MATLAB

Certainly! Here's a one-week syllabus for an "Introduction to Programming with MATLAB" course. This syllabus is designed to provide a comprehensive introduction to the fundamentals of MATLAB programming, assuming no prior programming experience.

One-Week Intensive Course: Introduction to Programming with MATLAB

Day 1: Introduction to MATLAB

- **Morning Session:**
 - Course Overview
 - Introduction to MATLAB Environment
 - Command Window
 - Workspace
 - Editor
 - Basic Commands and Operations
 - Variables and Assignment
 - Arithmetic Operations
 - Relational and Logical Operations
- **Afternoon Session:**
 - Vectors and Matrices
 - Creating and Manipulating Vectors
 - Matrix Operations
 - Indexing and Slicing



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College Code: R9

- **Basic Plotting**
 - Plot Function
 - Customizing Plots (labels, legends, titles)

Day 2: Control Structures

- **Morning Session:**
 - Conditional Statements
 - if, elseif, else
 - Loops
 - for Loop
 - while Loop
 - break and continue
- **Afternoon Session:**
 - **Examples and Exercises**
 - Implementing Basic Algorithms
 - Problem-Solving Sessions

Day 3: Functions and Scripts

- **Morning Session:**
 - **Scripts vs. Functions**
 - Creating and Running Scripts
 - Defining and Calling Functions
 - **Function Inputs and Outputs**
- **Afternoon Session:**
 - Scope and Lifetime of Variables
 - Anonymous Functions
 - Function Handles
 - Practical Examples and Exercises



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Day 4: Data Handling and File I/O

- **Morning Session:**
 - **Importing and Exporting Data**
 - Reading from and Writing to Files
 - Working with Excel and CSV Files
 - **Data Types and Structures**
 - Cell Arrays
 - Structures
- **Afternoon Session:**
 - **Data Pre-processing**
 - Cleaning and Manipulating Data
 - **Advanced Plotting Techniques**
 - Subplots
 - 3D Plots

Day 5: Advanced Topics and Applications

- **Morning Session:**
 - **Debugging and Error Handling**
 - Debugging Tools in MATLAB
 - Error Messages and Warnings
 - Try-Catch Blocks
- **Afternoon Session:**
 - Introduction to Simulink (Optional)
 - Basic Image Processing
 - GUI Development with GUIDE (Optional)
 - Course Review and Q&A

Day 6: Project Day and Presentation and Review



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• All Day:

- **Individual or Group Projects**
 - Students work on a small project that incorporates the topics covered throughout the week.
- **Instructor Support and Guidance**
- **Project Presentations**
 - Students present their projects to the class.
- **Peer and Instructor Feedback**
- **Review of Key Concepts**
- **Final Q&A**
- **Course Evaluation and Feedback**

Learning Outcomes

By the end of this course, students should be able to:-

- Navigate the MATLAB environment and use its basic functionalities.
- Write and execute MATLAB scripts and functions.
- Use control structures for decision-making and iteration.
- Handle and manipulate data in various forms.
- Implement basic algorithms and solve problems using MATLAB.

Required Materials

- MATLAB software (latest version preferred)
- Access to MATLAB documentation and resources (available online)
- A computer with sufficient computational capabilities

This syllabus is designed to provide a solid foundation in MATLAB programming, allowing students to build upon these skills for more advanced applications in their respective fields.


HOD ECE

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Department Of Electronics and Communication Engineering
Certificate of Completion

This is to certify that KOLLABATHULA AKASH bearing roll number 18R91A04C7 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "INTRODUCTION TO PROGRAMMING WITH MATLAB", organized by Department of ELECTRONICS AND COMMUNICATION ENGINEERING, Teegala Krishna Reddy Engineering College, Hyderabad, from 03-01-2022 to 08-01-2022

HOD-ECE

(Dr. SK. UMAR FARUK)



PRINCIPAL-TKREC

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Dr. K. V. Marali Mohan

Vice-Principal & Dean:

Dr. K.M.V. Madan Kumar

Convenor:

Dr. C.H.V. Phani Krishna
Prof & HOD of CSE

Coordinators:

Mr. P.V. Rama Gopala Rao
Assistant Professor, CSE, TKREC
Mr. T. Rakesh Kumar
Assistant Professor, CSE, TKREC

Organising Committee

Dr. Praveen Kumar
Assoc. Prof & Head, IT, TKREC
Dr. V. Adivelan Natarajan
Assoc. Prof & Head of AI&ML, TKREC
Dr. K. Sarangam
Assoc. Prof & Head CSD, TKREC
Dr. K. Bhargavi
Assoc. Professor, CSE, TKREC

About TKREC:

TKR Engineering College - a modern temple of learning, an Off shoot of the TKR Educational Society was established in the year 2005 in a sprawling, lush green 20 acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

Department of CSE was Established in the year 2005 and Offers B.Tech degree in CSE with an intake of 240, MTech in CSE with an intake of 24. It has Sophisticated infrastructural, state-of-art labs and experienced faculty. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programmes, industrial tours and visits, etc. In view of all these academic activities, the department has been accredited by NBA.

VISION:

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological scenario.



A Value-added Course

On
Block Chain
08-11-2021
Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC - 'A',
Affiliated to JNTUH, Hyderabad, Telangana)

Resource Persons: MRS.B. SWETHA
Professor CSE



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTU/H
Accredited by NAAC with 'A' Grade, Accredited by NBA)

Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



TKREC
TEEGALA KRISHNA REDDY ENGINEERING COLLEGE



College Code: R9

Syllabus of Value-added Course on Block Chain Technology

Day 1 UNIT- I

1. Introduction: Block chain or distributed trust
2. Protocol
3. Currency
4. Crypto currency

Day 2

- 1.How a Crypto currency works
- 2.Crowd funding.

Day 3 UNIT- II

- 1Extensibility of Block chain concepts
2. Digital Identity verification
- 3.Block chain Neutrality

Day 4

1. Digital art
2. Block chain Environment.

Day 5 UNIT- III

- 1.Block chain Science:
- 2.Grid coin,
- 3.Folding coin,

Day 6

- 1.Block chain Genomics,
- 2.Bit coin MOOCs

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

(Sponsored by TKRE Educational Society, Approved by AICTE, Affiliated to JNTUH
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Medbowli, Meerpeta, Hyderabad

Medbowli, Meerpeta, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Day 7 UNIT - IV

- 1.Currency, Token,
- 2.Tokenizing,
- 3.Campus coin,

Day 8

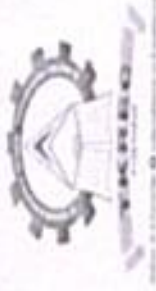
- 1.Coin drops as a strategy for Public adoption,
- 2.Currency Multiplicity,
- 3.Demurrage currency

UNIT - V

- 1.Technical challenges,
2. Business model challenges,
- 3.Scandals and Public perception,
- 4.Government Regulations



G.M
HOD-CSE
Dr. Ch. V. Prasad Krishnaiah
Principal
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpeta, Hyderabad



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that ABBAGANI KAVYA bearing roll number 21R91A0502 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "Block Chain", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 08-11-2021 to 15-12-2021.



Signature

HOD-CSE

(Dr.CH. V. Phani Krishna)

PRINCIPAL

Teegala Krishna Reddy Engineering College
Medbowl, Meerpet, Hyderabad - 97.

UGC-AUTONOMOUS

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

OUR STRENGTH

Chief Patron

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy
Secretary, TKRES
Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K. M. A. Madan Kumar

Convener:

Dr. C. L. V. Phani Krishna
Prof & HOD of CSE

Coordinators:

Mr. P. V. RamaGOPALA Rao

Assistant Professor, CSE, TKREC

Mr. T. Rakesh Kumar

Assistant Professor, CSE, TKREC

Organising Committee

Dr. Praveen Kumar

Assoc. Prof & Head, IT, TKREC

Dr. Vasudevan Natarajan

Assoc. Prof & Head of AI&ML, TKREC

Dr. N. Sarangam

Assoc. Prof & Head CSD, TKREC

Dr. K. Bhargavi

Assoc. Professor, CSE, TKREC

About TKREC:

TKR Engineering College – a modern temple of learning, an Off shoot of the TKR Educational Society was established in the year 2005 in a sprawling, lush green 20 acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

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VISION

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological society.



A Value-added Course on Robotics & Animation

ON
18-04-2022

Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(Approved by AICTE, accredited by NBA & NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)

Resource Persons: MR. PRAVEEN KUMAR,

Professor CSE



Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

TEEGALAKRISHNAREDDYENGINEERINGCOLLEGE

(UGC-Autonomous)

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College Code: R9

Syllabus of Value-added Course on Robotics and Animations

Day 1: Introduction to Robotics

- 1) Overview of robotics technology
- 2) History and evolution of robotics
- 3) Applications of robotics in industry and research

Day 2 : Robot Design and Mechanics

- 1) Basics of robot design and construction
- 2) Types of robot mechanisms (e.g., wheeled, legged, manipulators)
- 3) Kinematics and dynamics of robot motion

Day 3: Sensors and Actuators

- 1) Introduction to sensors used in robotics (e.g., proximity sensors, encoders)
- 2) Actuators and motors for robot movement
- 3) Integration of sensors and actuators in robotic systems

Day 4: Programming Robots

- 1) Basics of robot programming languages (e.g., C/C++, Python)
- 2) Robot control systems and algorithms
- 3) Simulation and testing of robot programs

Day 5: Introduction to Animation

- 1) Overview of animation technology
- 2) Principles of animation (e.g., squash and stretch, timing, anticipation)
- 3) Introduction to animation software (e.g., Blender, Autodesk Maya)

Day 6 : 3D Modeling and Rigging

- 1) Basics of 3D modeling for animation
- 2) Character design and modeling
- 3) Rigging and skeletal

animation Day 7: Animation

Techniques

TEEGALAKRISHNAREDDYENGINEERINGCOLLEGE

(UGC-Autonomous)

(Sponsored by TKRE Educational Society, Approved by AICTE, Affiliated to JNTUH, Accredited by NAAC with 'A' Grade, Accredited by NBA)



TKREC
TEEGALAKRISHNAREDDY ENGINEERING COLLEGE

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Mob:8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

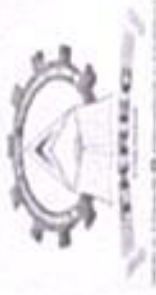
- 1) Key frame animation
- 2) Motion capture and performance animation
- 3) Particle systems and special effects

Gunt
HOD-CSE

Dr. G. N. R. KRISHNA REDDY
Head of the Department
of Computer Science and Engineering
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Balapur, Hyderabad - 500097



[Signature]
PRINCIPAL
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Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Participation

This is to certify that K SHIVA SAI REDDY bearing roll number 18R91A0519 of **TEEGALA**

KRISHNA REDDY ENGINEERING COLLEGE has participated in a value-added course on

"Robotics & Animation", organized by Department of Computer Science and

Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 18-04-2022 to

23-04-2022.



CHV

HOD-CSE

(Dr.CH.V.Phani krishna)

PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

PRINCIPAL-TKREC

(Dr.K.Venkata Murali Mohan)

OUR STRENGTH

Chief Patron

Dr. M. Teegala Narayana Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy
Secretary, TKRES
Dr. Teegala Amaravathi Reddy
Treasurer, TKRES

Principal:

Dr. K. V. Mohan Mahan

Vice-Principal & Dean:

Dr. M. V. Madhav Kumar

Convener:

Dr. C. V. Prasad Reddy
Prof & HOD of CSE

Coordinators:

Mr. P. V. Rama Raju Rao
Assistant Professor, CSE, TKREC
Mr. C. Rakesh Kumar
Assistant Professor, CSE, TKREC

Organising Committee

Dr. Praveen Kumar
Assoc.Prof & Head, IT, TKREC
Dr. Yashwanth Nataraj
Assoc.Prof & Head of AI&ML, TKREC
Dr. K. Suresh
Assoc.Prof & Head CSD, TKREC
Dr. K. Bhargava
Assoc.Professor, CSE, TKREC

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VISION

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological society.

A Value-added Course On English for Research 07-12-2021 Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC – 'A',
Affiliated to JNTUH, Hyderabad, Telangana)

Resource Persons: MRS.K. SUDHA RANI
Professor CSE



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-Affiliated Institution)
Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

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Accredited by NAAC with 'A' Grade, Accredited by NDA

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on English for Research

Day 1: Introduction to Academic Writing

- 1) Characteristics of academic writing
- 2) Components of a research paper
- 3) Importance of clarity, coherence, and conciseness

Day 2 : Reading Comprehension Strategies

- 1) Strategies for effective reading of academic texts
- 2) Identifying main ideas, arguments, and supporting evidence
- 3) Note-taking techniques for research reading

Day 3 : Academic Vocabulary and Grammar

- 1) Academic vocabulary building
- 2) Complex sentence structures and academic writing style
- 3) Avoiding common grammatical errors in academic writing

Day 4: Writing Research Papers

- 1) Developing research questions and hypotheses
- 2) Writing literature reviews and methodology sections
- 3) Organizing and structuring research papers

Day 5: Citation and Referencing

- 1) Importance of citation and referencing in academic writing
- 2) Overview of citation styles (e.g., APA, MLA)
- 3) Practice in citing sources and creating reference lists

Day 6: Effective Communication of Research Findings

- 1) Strategies for effective oral presentations
- 2) Creating engaging visuals for presentations
- 3) Handling questions and feedback during presentations

Day 7: Academic Writing Workshop

- 1) Hands-on workshop focusing on specific sections of a research paper

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTU1)
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College Code: R9

2) Individual consultations with the instructor

3) Peer review and feedback sessions

Day 8: Review and Revision

1) Strategies for revising and editing academic writing

2) Peer review and feedback

3) Proofreading techniques

Cyral
HOD-CSE

Dr. C. P. V. RAMESH KISHORE
Head of the Department
Computer Science & Engineering
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Balapur, Hyderabad - 500097



Principal
PRINCIPAL

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that ABBAGANI KAVYA bearing roll number 21R91A0502 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "English for Research". organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 07-12-2021 to 14-12-2021.



CH

HOD-CSE

(Dr.CH. V. Phani Krishna)

Murali Mohan

PRINCIPAL

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Medbowli, Hyderabad - 97.

(Dr.K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)
ACADEMIC & TRAINING SOCIETY
TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

One week Workshop On Network Simulation using NS2 Tool

OBJECTIVES OF THE WORKSHOP

This workshop is to familiarize participants with the NS2 (Network Simulator 2) software and its applications in simulating and analyzing computer networks. NS2 is a widely used open-source simulation tool that allows researchers, students, and professionals to model and study various network protocols, algorithms, and architectures.

Date: 27-09-2021 to 02-10-2021

**Organizing By
Department of IT**

About TKREC:

TKR Engineering College - a modern temple offering an Offshoot of the TKR Educational Society was established in the year 2002 in sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on their faces and emerge victorious.

About Department:

VISION

The program aims at creating capable engineering professionals to meet the flourishing needs of the industry and society in the field of Information Technology.

MISSION

Impart adequate employability skills to make the students industry ready with global standards.
Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

Resource Person:

**R.Ravi Kumar,
VNR Vignana Jyothi Institute of
Engineering & Technology, Hyderabad**



VNR

OUR STRENGTH

Chief Patron:

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patron:

Dr. Teegala Harinath Reddy
Secretary, TKRES

Co-Patron:

Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean of Academics:

Dr. K. M. V. Madan Kumar

Convener:

Dr. J. Praveen Kumar
HOD of IT

Coordinators:

Mrs. A. Vijetha
Assistant Professor, TKREC

Mrs. K. Hymavathi

Assistant Professor, IT, TKREC

Mob: 9393959597.

Email: info@tkrec.ac.in,

deanacademics@tkrec.ac.in

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

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College Code: R9

Date: 25-09-2021

Syllabus of Network Simulation using NS2 tool:

1. Introduction to Network Simulation and NS2

1. Overview of network simulation concepts and methodologies
2. Introduction to NS2 tool: features, architecture, and installation
3. Basics of TCL (Tool Command Language) scripting for NS2 simulations
4. Hands-on session: Setting up the NS2 environment and running simple network simulations

2. Network Topology and Traffic Generation

1. Understanding network topologies and their representation in NS2
2. Configuring nodes, links, and traffic sources in NS2 simulations
3. Generating different types of traffic (e.g., TCP, UDP) and traffic patterns
4. Hands-on session: Creating and configuring network topologies and generating traffic in NS2 simulations

3. Protocol Modelling and Simulation

1. Overview of protocol design and modelling concepts
2. Implementing network protocols (e.g., TCP, UDP, routing protocols) in NS2
3. Customizing protocol parameters and behaviours in NS2 simulations
4. Hands-on session: Designing and simulating network protocols using NS2

4. Performance Evaluation and Analysis

1. Performance metrics for evaluating network protocols and applications
2. Collecting and analysing simulation results in NS2
3. Visualizing simulation outputs using NS2 trace files and tools
4. Hands-on session: Analysing simulation results and interpreting performance metrics in NS2

5. Advanced Topics in NS2

1. Introduction to wireless and mobile network simulation in NS2
2. Simulation of ad hoc networks, MANETs, and wireless sensor networks
3. Hands-on session: Simulating wireless and mobile networks scenarios in NS2

6. Optimization and Validation

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTUH
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College Code: R9

1. Techniques for optimizing NS2 simulations for scalability and efficiency
2. Validating simulation results against real-world data and benchmarks
3. Debugging and troubleshooting common issues in NS2 simulations
4. Hands-on session: Optimizing NS2 simulations and validating results

7. Project Work and Presentation

1. Participants work on a network simulation project of their choice, applying the concepts and skills learned throughout the course
2. Project presentations: Participants showcase their projects, discussing their methodologies, results, and insights
3. Course conclusion: Recap of key learnings, feedback collection, and certificate distribution

Jp9
25/9/21
Head of Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **GANJI PREETHAM** bearing roll number **19R91A1216** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Networking Simulation using NS2 Tool**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **27-09-2021** to **02-10-2021**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC - AUTONOMOUS)
A-10, NIT, Nellore - 524 002
TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

One week Workshop

On

Cloud Computing and Virtualization

OBJECTIVES OF THE WORKSHOP

This Workshop provides participants with a comprehensive understanding of these transformative technologies, their principles, applications, and benefits. Participants will gain practical knowledge about cloud computing models, virtualization techniques, and how they are used to optimize resource utilization, improve scalability, and enhance IT infrastructure management.

Date: 21-03-2022 to 26-03-2022
Organizing By
Department of IT



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Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

Resource Person:

Dr. V. Biksham,
Sreyas Institute of Engineering
and Technology,
Hyderabad.

meera

OUR STRENGTH

Chief Patron:

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patron:

Dr. Teegala Harinath Reddy
Secretary, TKRES

Co-Patron:

Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean of Academics:

Dr. K. M. V. Madan Kumar

Convener:

Dr. J. Praveen Kumar
HOD of IT

Coordinators:

Mrs E. Aruna
Assistant Professor, TKREC

Mrs. K. Hymavathi

Assistant Professor, IT, TKREC

Mob: 9393959597.

Email: info@tkrec.ac.in,

deanacademics@tkrec.ac.in

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College Code: R9

Syllabus of Cloud Computing and Virtualization

Date: 18-03-2022

Introduction to Cloud Computing

1. Overview of cloud computing concepts, history, and evolution
2. Cloud service models: Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS)
3. Cloud deployment models: public, private, hybrid, and community clouds
4. Hands-on session: Introduction to cloud computing platforms (e.g., AWS, Azure, Google Cloud)

Cloud Architecture and Infrastructure

1. Understanding cloud architecture components: compute, storage, networking
2. Virtualization techniques: hypervisors, containers, virtual machines (VMs)
3. Cloud security principles and best practices
4. Hands-on session: Deploying virtual machines and containers on cloud platforms

Infrastructure as a Service (IaaS)

1. Overview of IaaS providers and services
2. Managing and scaling virtual infrastructure in the cloud
3. Automation and orchestration tools for managing cloud resources
4. Hands-on session: Setting up virtual networks, storage, and compute instances on IaaS platforms

Platform as a Service (PaaS)

1. Introduction to PaaS offerings and benefits
2. Developing and deploying applications on PaaS platforms
3. Container orchestration using Kubernetes for PaaS environments
4. Hands-on session: Deploying and managing applications on PaaS platforms

Software as a Service (SaaS)

1. Overview of SaaS applications and examples
2. Integration and customization of SaaS solutions
3. Data migration and interoperability considerations for SaaS adoption
4. Hands-on session: Exploring and using SaaS applications for common use cases

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)



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Mob: 8498085218. Email: info@tkrec.ac.in. www.tkrec.ac.in



College Code: R9

Cloud Security and Governance

1. Security challenges and considerations in cloud environments
2. Identity and access management (IAM) in cloud services
3. Compliance, risk management, and governance frameworks
4. Hands-on session: Implementing security policies and controls on cloud platforms

Project Work and Presentation

1. Participants work on a cloud computing project of their choice, applying the concepts and skills learned throughout the course
2. Project presentations: Participants showcase their projects, discussing their methodologies, results, and insights
3. Course conclusion: Recap of key learnings, feedback collection, and certificate distribution

JPL
Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **DORAGARI RACHANA** bearing roll number **18R91A1216** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Cloud Computing & Virtualization**", organized by Department of Information Technology, Teegala Krishna Reddy Engineering College, Hyderabad, from **21-03-2022** to **26-03-2022**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)



**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

(UGC-AUTONOMOUS)
Approved by AICTE, Government of Andhra Pradesh
Established in 1984

One week Workshop
On
**Android Technology and Advanced
Java Concepts**

OBJECTIVES OF THE WORKSHOP

This workshop provides participants with a comprehensive understanding of Android app development, the Java programming language, and how they are used together to create sophisticated and feature-rich Android applications. Participants will gain practical skills in Android app development and learn advanced Java concepts that are essential for building complex mobile applications.

Date: 13-12-2021 to 19-12-2021
Organizing By
Department of IT



About TKREC:

TKR Engineering College – a modern temple of learning, an offshoot of the TKR Educational Society was established in the year 2002 in sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on their faces and emerge victorious.

About Department :

VISION

The program aims at creating capable engineering professionals to meet the flourishing needs of the industry and society in the field of Information Technology.

MISSION

Impart adequate employability skills to make the students industry ready with global standards.
Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

Resource Person:

G.Radha,
**Geethanjali College of
Engineering and Technology,
Hyderabad**

www

OUR STRENGTH

Chief Patron:

**Hon Mr. Teegala Krishna Reddy
Chairman, TKRES**

Patron:

**Dr. Teegala Harinath Reddy
Secretary, TKRES**

Co-Patron:

**Sri. Teegala Amarnath Reddy
Treasurer, TKRES**

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean of Academics:

Dr. K. M. V. Madan Kumar

Convener:

**Dr. J. Praveen Kumar
HOD of IT**

Coordinators:

**Mrs G. Archana
Assistant Professor, TKREC**

Mrs. K. Hymavathi

Assistant Professor, IT, TKREC

Mob: 9393959597.

Email: info@tkrec.ac.in,

deanacademics@tkrec.ac.in

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTUH
Accredited by NAAC with 'A' Grade, Accredited by NTA)

Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097

Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Android Technology and advanced Java Concepts: *Date: 10-12-2021*

Introduction to Android Development

1. Overview of Android platform architecture and components
2. Setting up the Android development environment (Android Studio)
3. Basics of Android app structure: activities, layouts, and resources
4. Hands-on session: Creating and running a basic "Hello World" Android app

User Interface (UI) Design in Android

1. Understanding Android UI components: views, layouts, and widgets
2. Designing responsive and user-friendly UI layouts
3. Handling user input events and interactions
4. Hands-on session: Building a simple Android app with custom UI layouts and components

Android Data Management

1. Working with data in Android apps: SQLite database, SharedPreferences
2. Implementing data persistence and CRUD (Create, Read, Update, Delete) operations
3. Using content providers for data sharing between apps
4. Hands-on session: Integrating data management functionalities into Android apps

Advanced Java Concepts

1. Recap of Java programming fundamentals: classes, objects, inheritance, polymorphism
2. Exception handling and error management in Java
3. Generics, collections, and data structures in Java
4. Hands-on session: Implementing advanced Java concepts through coding exercises

Networking and Multithreading in Android

1. Networking basics in Android: HTTP requests, RESTful APIs
2. Multithreading and asynchronous programming in Android
3. Handling background tasks and concurrency issues
4. Hands-on session: Implementing network requests and multithreading in Android apps

Android Application Architecture

1. Introduction to Android architecture patterns: MVC, MVP, MVVM

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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097

Mob: 8498085218. Email: info@tkrec.ac.in. www.tkrec.ac.in



College Code: R9

2. Building modular and maintainable Android applications
3. Dependency injection and inversion of control (IoC) in Android
4. Hands-on session: Refactoring Android apps using architecture patterns and best practices

Project Work and Presentation

1. Participants work on an Android app project of their choice, applying the concepts and skills learned throughout the course
2. Project presentations: Participants showcase their projects, discussing their methodologies, results, and insights
3. Course conclusion: Recap of key learnings, feedback collection, and certificate distribution

Signature
Head of the Dept.
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **GADDAM AVINASH** bearing roll number **20R91A1218** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Android Technology & Advanced Java Concepts**", organized by Department of Information Technology, Teegala Krishna Reddy Engineering College, Hyderabad, from **13-12-2021** to **19-12-2021**.

HOD-IT

Dr. J. Praveen Kumar

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

OUR STRENGTH

Chief Patron

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy
Secretary, TKRES

Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice-Principal & Dean:

Dr. K.M.V. Madan Kumar

Convener:

Mr. V. Surya Narayana
Prof & HOD of MBA

Coordinator:

Mr. D. Srisaillam

Assistant Professor, MBA, TKREC

About TKREC:

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About Department:

TKREC MBA was established in the year 2007 with the approval of AICTE, New Delhi offers two year full-time MBA Programme, which is affiliated to Jawaharlal Nehru Technological University, Hyderabad with an intake of 60 in Management. The institute has carved a niche for itself, within a short period of time, among a host of management institutions. To

accomplish the mission of Indian in values & International in excellence, with excellent infrastructure and competent faculty, TKREC MBA is imparting quality management education. The prime focus is on application of knowledge, development of positive attitude, diverse skills and competencies among the students. Pedagogy includes lectures, case discussions, Role-plays and simulation.

VISION:

Striving for an outstanding value based quality education, developing entrepreneurial skills to become global managers and continue to hold passion for knowledge-sharing in all facets of management education, embedding Indian culture and societal values.

A Value-Added Course

On

Stress and Anger Management
(24-05-2021 to 28-05-2021)

Organized by

MR.V.Surya Narayana



Department of MBA

TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE

(Approved by AICTE, accredited by NBA
& NAAC – 'A', Affiliated to JNTUH,
Hyderabad, Telangana)

Resource Person: Mr. P. V. Rajeshwar



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

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Accredited by NAAC with 'A' Grade. Accredited by NBA)

Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Stress and Anger Management

Day 1: Understanding Stress and Anger

1. Introduction to stress and anger
2. Types of stressors and anger triggers
3. Physiological and psychological responses to stress and anger.

Day 2: Recognizing Personal Triggers

1. Identify personal stress and anger triggers
2. Analyze individual patterns of stress and anger reactions
3. Understand the role of cognitive appraisal in stress and anger perception.

Day 3: Anger Management Techniques

1. Learn techniques for anger management
2. Including cognitive restructuring
3. assertiveness training, and problem-solving skills
4. Discuss the consequences of uncontrolled anger and aggression.

Day 4: Communication and Conflict Resolution

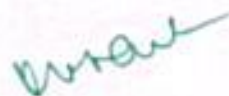
1. Develop effective communication skills for expressing feelings and needs assertively
2. Understand the importance of empathy and active listening in conflict resolution.

Day 5: Coping Strategies for Stress Management

1. Introduce various coping mechanisms for stress management,
2. Discuss the importance of self-care
3. Healthy lifestyle choices in stress reduction.


HOD - MBA

Teegala Krishna Reddy Engg. College
S.B. Medbowli, Meerpet,
Saroornagar, Hyderabad - 500079, A.P.





TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of MBA

Certificate of Completion

This is to certify that **CH.MAHESH** bearing roll number **20R91E0005** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**STRESS AND ANGER MANAGEMENT**", organized by Department **MBA Teegala Krishna Reddy Engineering College, Hyderabad, from 24-05-2021 to 28-05-2021.**

HOD-MBA

(Mr.V.Surya Narayana)



Principal
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.

PRINCIPAL-TKREC

(Dr.K.Venkata Murali Mohan)

OUR STRENGTHH

Chief Patron

Hon Mr.Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr.Teegala Harinath Reddy
Secretary, TKRES
Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal& Dean:

Dr.K.M.V.Madan Kumar

Convenor:

Mr.V.Surya Narayana
Prof & HOD of MBA

Coordinator:

Mr. D.Srisailam
Assistant Professor, MBA ,TKREC

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VISION:

Striving for an outstanding value based quality education, developing entrepreneurial skills to become global managers and continue to hold passion for knowledge-sharing in all facets of management education, embedding Indian culture and societal values.

R9
R9

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

A Value-Added Course

On

Salesforce Management
(24-01-2022 to 29-01-2022)

Organized by

MR.V.Surya Narayana



Department of MBA

TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE

(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)

Resource Person:Mr.G.Suresh Reddy



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Sales Force Management

Day 1: Introduction to Sales Force Management

1. Define sales force management and its importance in achieving sales objectives
2. Explore the roles and responsibilities of sales managers
3. Understand the components of an effective sales force structure

Day 2: Recruitment and Selection of Sales Personnel

1. Discuss strategies for recruiting and selecting qualified sales professionals
2. Examine the importance of aligning candidate skills with organizational needs
3. Learn techniques for conducting effective interviews and assessments.

Day 3: Training and Development

1. Develop training programs to equip sales personnel with necessary skills and product knowledge
2. Explore different training methods, including role-playing
3. On-the-job training, and workshops.

Day 4: Leadership in Sales Management

1. Explore different leadership styles and their impact on sales team dynamics
2. Cultivate effective communication skills for motivating and inspiring sales professionals.

Day 5: Application of Sales Force Management Principles

1. Apply sales force management principles to real-world scenarios and case studies.
2. Analyze successful sales force management strategies employed by leading organizations.

HOD - MBA

Teegala Krishna Reddy Engg. College
S 6 Meerpet, Meerpet,
Saroonagar, Hyderabad - 500079, A.P.

PRINCIPAL

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of MBA

Certificate of Completion

This is to certify that D.GOUTHAMI bearing roll number 20R91E0008 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "SALESFORCE MANAGEMENT", organized by Department MBA Teegala Krishna Reddy Engineering College, Hyderabad, from 24-01-2022 to 29-01-2022.

HOD-MBA

(Mr.V.Surya Narayana)



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 500097.

PRINCIPAL-TKREC

(Dr.K.Venkata Murali Mohan)

OUR STRENGTH

Chief Patron

Hon. Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy
Secretary, TKRES

Sri. Teegala Anjanath Reddy
Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice-Principal & Dean:

Dr. K.M.V. Madan Kumar

Convener:

Mr. MD. Muneeruddin Khan
Assistant Professor & HOD of CE

Coordinator:

Mr. N. Chandra Gupta
Assistant Professor, CE, TKREC

About TKREC:

TKR Engineering College - a modern temple of learning, an offshoot of the TKR Educational Society was established in the year 2002 in a sprawling lush green, 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

The department was established in the year of 2009 with an intake of 60 students now its 120. The Department offers a four-year UG course leading to B.Tech in Civil Engineering. The department has energetic and experienced faculty (Industrial & Teaching) for the benefit of the students and to promote R&D. The department has conducted National Conferences, Workshops, Seminars, Guest lecture, Industrial & Field Visits, etc to update the Technical knowledge of students. The department has fully equipped laboratories and all infrastructures to meet the academic requirements.

VISION:

To impart technical knowledge in the field of civil engineering and expose the graduate students to the technology.

A Value-Added Course

On

ENTREPRENEURSHIP

(10-02-2021 to 17-02-2021)

Organized by

Mr. MD. Muneeruddin Khan



www.tkr.ac

Department of CIVIL

**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTUHL,
Hyderabad, Telangana)

Resource Person: Dr. Ch. Naresh



PRINCIPAL

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500014

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Entrepreneurship

Day 1: Introduction to Entrepreneurship

1. Definition and significance of entrepreneurship
2. Characteristics of successful entrepreneurs
3. Overview of the entrepreneurial process

Day 2: Opportunity Identification

1. Identifying market gaps and unmet needs
2. Market research techniques
3. Assessing the feasibility and viability of business ideas

Day 3: Business Planning and Strategy

1. Components of a business plan
2. Writing a mission and vision statement
3. Developing a business model canvas

Day 4: Financial Management for Entrepreneurs

1. Basics of financial accounting and bookkeeping
2. Financial statements interpretation
3. Budgeting and financial forecasting

Day 5: Marketing and Sales Strategies

1. Understanding target market and customer segmentation
2. Branding and positioning
3. Digital marketing strategies

Day 6: Legal and Regulatory Considerations

1. Legal structures for businesses
2. Intellectual property rights
3. Compliance with local regulations and permits

Day 7: Leadership and Team Building

1. Characteristics of effective leaders
2. Building and leading high-performance teams
3. Communication and conflict resolution skills

Handwritten signature in green ink.

Handwritten signature in black ink.
HEAD OF THE DEPARTMENT
Department of Civil Engineering
Teegala Krishna Reddy Engineering College,
Meerpet, Saroor Nagar, Hyderabad-97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Civil Engineering

Certificate of Completion

This is to certify that **ALUVALA KARTHIK** bearing roll number **17R91A0101** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on **"ENTREPRENEURSHIP"**, organized by Department of Civil Engineering, Teegala Krishna Reddy Engineering College, Hyderabad from **10th -17th FEB, 2021**.

HOD-CE

(**MD.MUNEERUDDIN KHAN**)



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS) Meerpet, Hyderabad - 97.

PRINCIPAL-TKREC

(**Dr. K. Venkata Murali Mohan**)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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AICTE, Affiliated by JNTUH, Accredited by NIRA &
NAAC)

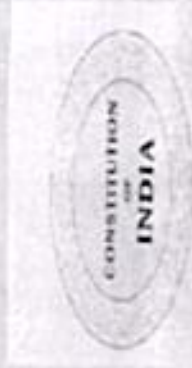
Meerpet, Meerpet, Saranagar, Hyderabad-500097
Phone: 040-2492838 Fax: +91-040-2492555
Email: tkrec@rediffmail.com Website: www.tkrec.ac.in

About the Institution:

Teegala Krishna Reddy Engineering College (TKREC) was founded in the year 2005 by TKR Educational Society established in 2001 under the dynamic leadership of Sri Teegala Krishna Reddy, M.A., with prime motto of educating people with strong basic knowledge. Teegala Krishna Reddy Engineering College (TKREC) was established with a vision of imparting knowledge and instilling skills in the aspiring students in the fields of Engineering, Technology, Science and Management to face the emerging challenges of the society. The college offers diploma courses in EEE, ECE, CME, CEE and UG courses in CE, EEE, ECE, CSE, IT and PG courses in M.TECH and M.B.A.

About the Department:

The department of Electrical and Electronics Engineering was started in 2005, with intake of 60. A vision of striving to provide quality education and train students in the contemporary technologies, to meet the needs and demands of global industry shaping them into skilled engineers imbued with professional ethics. The department is run by well qualified and experienced faculty committed to train students realising the importance of latest



VALUE ADDED COURSE OF

CONSTITUTION OF INDIA

From AUGUST 9TH to AUGUST 14TH
2020

About the course:

The course on constitution of India highlights key features of Indian Constitution, like directive principles of state policy, fundamental rights and duties, and the various organs of constitution

Organizing Committee:
Chief Patron: Sri. Teegala Krishna Reddy,
CHAIRMAN, TKRES.
Patrons: Dr. Y. Harinath Reddy,
SECRETARY, TKRES.
Sri. S. Amarnath Reddy,
TREASURER, TKRES.
Dr. S. B. Rama Srinivas
DIRECTOR, TKRES.

Chairman: Dr. P. Ram Mohan Rao
PRINCIPAL, TKREC.

Advisory
Committee: K. Soudarya Rajan,
PROF. & acting DEAN (B&Camp: D)
A.V. Prathap Kumar

Venue & Duration:
Auditorium: R9
Timing: 10:00 am to 1:00 pm
For further information contact:
Coordinator
Mr. B. Ramakrishna,
Asst. Prof. EEE,
Dept. 2206700416,
T.MADHU BABU,
Head of the Department - EEE, TKREC
Ph. No: +91-8116476450
E-Mail: ceedep@tkrec@gmail.com
Web: www.tkrec.ac.in



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Teegala Krishna Reddy Engineering College

Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)



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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in

DEPARTMENT OF ELECTRICAL ENGINEERING



College Code: R9

Syllabus of Value-added Course on Constitution of India

Unit –I: Constitution: Meaning & Constitutionalism, Historical perspective - : 1909 Act, 1919 Act & 1935 Act, Salient features & nature of the Constitution,

Unit –II : Fundamental Rights: Introduction & its scheme, Right to Equality (Art.14), Right to Fundamental Freedoms (Art. 19), Right to Life (Art. 21), Directive Principles of State Policy: importance and implementation, Fundamental Duties and its legal status.

Unit –III : Government: Union & State – Executive & Legislature, composition, powers and functions, Local Self Governments – Panchayat Raj Institutions & Urban Local Bodies (Municipalities). Statutory Institutions: Elections-Election Commission of India, National Human Rights Commission, National Commission for Women.

Unit –IV: Federal structure & distribution of legislative and financial powers between the Union and the States.


H.O.D.
Electrical and Electronics Engineering
TKR Engineering College
Meerpet, Hyderabad-500 079

K. Venk
PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

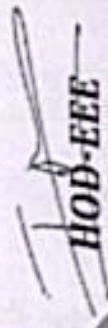
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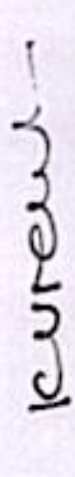
Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering

Certificate of Completion

This is to certify that **ALETI RANJITH** bearing with roll number **17R91A0203** of Teegala Krishna Reddy Engineering College has been completed the course on "**CONSTITUTION OF INDIA**", organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 9th -14th August, 2020.


HOD-EEE
(T. Madhu Babu)


PRINCIPAL-TKREC
(Dr.K. Venkata Murali Mohan)



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(Sponsored by TKR Educational Society, Approved by
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SAAC)

Medibowls, Meerpeta, Sarcoonnagar, Hyderabad-500097
Phone: 040-24928338 Fax: +91-040-24922555
Email: tkrec@rediffmail.com Website: www.tkrec.ac.in

About the Institution:

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VALUE ADDED COURSE

OF

HUMAN VALUES & PROFESSIONAL ETHICS

From 3rd AUGUST TO 8th AUGUST, 2020.

About the course:

The set of moral principles and standards that guide the behavior and conduct of legal professionals. It encompasses the values and obligations that lawyers and advocates must uphold while practicing law

Organizing Committee:
Chief Patron: Sri. Teegala Krishna Reddy,
CHAIRMAN, TKREC.
Patrons (Dr. T. Harinath Reddy,
SECRETARY, TKREC,
Sri. C. Amarnath Reddy,
TREASURER, TKREC,
Dr. S. R. Rama Swamy
DIRECTOR, TKREC.

Chairman: Dr. P. Ram Mohan Rao
PRINCIPAL, TKREC.

**Advisory
Committee:** K. Soundara Rajan,
PROF. &amp; DEAN (R&amp;D)
A.V. Prathap Kumar

Venue & Duration:
Auditorium: R9
Timing: 10:00 am to 1:00 pm
For further information contact:
Coordinator
Mr. B. Ramesh,
Asst. Prof. EEE Dept.,
7386706616,
T.MADHU BABU,
Head of the Department - EEE, TKREC
Ph No: +91-8106476450
E-Mail: eece@tkrec.ac.in
Web: www.tkrec.ac.in



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DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



College Code: R9

Syllabus of Value-added Course on HUMAN VALUES & PROFESSIONAL ETHICS.

Unit -I: HUMAN VALUES, Unit Syllabus :Morals, values and Ethics – Integrity – Work ethic – Service learning – Civic virtue – Respect for others – Living peacefully – Caring – Sharing – Honesty – Courage – Valuing time – Cooperation – Commitment – Empathy – Self confidence – Character – Spirituality – Stress and Emotional management.

Unit -II : ENGINEERING ETHICS Unit Syllabus : Senses of 'Engineering Ethics' – Variety of moral issues – Types of inquiry – Moral dilemmas – Moral Autonomy – Kohlberg's theory – Gilligan's theory – Consensus and Controversy – Models of professional roles - Theories about right action – Self-interest – Customs and Religion – Uses of Ethical Theories.

Unit-III: ENGINEERING AS SOCIAL EXPERIMENTATION Unit Syllabus : Engineering as Experimentation – Engineers as responsible Experimenters – Codes of Ethics – A Balanced Outlook on Law.

Unit -IV: SAFETY, RESPONSIBILITIES AND RIGHTS Unit Syllabus : Safety and Risk – Assessment of Safety and Risk – Risk Benefit Analysis and Reducing Risk - Respect for Authority – Collective Bargaining – Confidentiality – Conflicts of Interest – Occupational Crime – Professional Rights – Employee Rights – Intellectual Property Rights (IPR) – Discrimination

K. V. R. E. W.

PRINCIPAL

Tegala Krishna Reddy Engineering College
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[Signature]
HOD

Electrical and Electronics Engineering
T K R Engineering College
Meerpet, Hyderabad-500 079



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Meerpet, Hyderabad - 500097


Department of Electrical & Electronics Engineering

Certificate of Completion

This is to certify that **KASOJU HINDU** bearing with roll number **17R91A0222** of Teegala Krishna Reddy Engineering College has been completed the course on "**HUMAN VALUES & PROFESSIONAL ETHICS**", organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 3rd-8th AUGUST 2020.


HOD-EEE
(T.MadhuBabu)



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Dr.SK.Umar Faruq

VISION

- To be a centre of learning in the field of Electronics and Communication Engineering to develop competent professionals for industry and to fulfill the needs of the society.

MISSION

- To impart quality education through effective teaching learning process
- To provide essential inter-disciplinary technology to make the student's readily employable
- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

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- PEO3: The graduate will have the capability to analyse real life problems of the society and produce innovative solutions

1 Week Value Added
Course on

STRESS MANAGEMENT

01/02/2021 to 06-02-2021

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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 25-01-2021

Syllabus on stress management

Day 1: Understanding Stress

- Introduction to stress: definition, types, and its impact on health and well-being
- The stress response: physiological and psychological aspects
- Stressors identification: recognizing common stress triggers in daily life
- Assessment tools: understanding stress levels and their implications

Day 2: Cognitive Approaches to Stress Management

- Cognitive restructuring: identifying and challenging negative thought patterns
- Stress appraisal: understanding how perceptions influence stress reactions
- Cognitive-behavioral techniques: practical strategies for changing thinking patterns
- Stress inoculation training: developing resilience through cognitive strategies

Day 3: Relaxation Techniques

- Introduction to relaxation methods: deep breathing, progressive muscle relaxation, guided imagery
- Mindfulness meditation: cultivating present-moment awareness to reduce stress
- Biofeedback and neurofeedback: harnessing technology for stress management
- Practicing relaxation techniques: experiential exercises and guided sessions

Day 4: Lifestyle Management

- Stress and lifestyle factors: exploring the impact of nutrition, exercise, and sleep on stress levels
- Healthy eating habits: optimizing nutrition for stress resilience



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College Code: R9

- Physical activity for stress reduction: designing an exercise plan tailored to individual needs
- Sleep hygiene: strategies for improving sleep quality and managing sleep-related stress

Day 5: Emotional Regulation

- Understanding emotions: the role of emotions in stress and coping
- Emotion regulation strategies: identifying and managing difficult emotions
- Building emotional resilience: cultivating self-awareness and empathy
- Emotional expression: creative outlets for processing and releasing stress

Day 6: Integrative Approaches to Stress Management

- Holistic approaches to stress reduction: integrating mind, body, and spirit
- Social support networks: strengthening relationships and seeking support
- Self-care practices: developing a personalized stress management plan
- Long-term stress management strategies: sustaining well-being beyond the course


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Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that VOJJALA AKSHITHA bearing roll number 17R91A0494 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "STRESS MANAGEMENT", organized by Department of ELECTRONICS AND COMMUNICATION ENGINEERING, Teegala Krishna Reddy Engineering College, Hyderabad, from 01-02-2021 to

06-02-2021

HOD-ECE

(Dr. S.K. UMAR FARUK)



PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)
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Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

HEAD OF THE DEPARTMENT

Dr.SK.Umar Faruq

VISION

- To be a centre of learning in the field of Electronics and Communication Engineering to develop competent professionals for industry and to fulfill the needs of the society

MISSION

- To impart quality education through effective teaching learning process
- To provide essential inter-disciplinary technology to make the students readily employable
- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- PEO1: The graduates will be able to adopt emerging technology for career development
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1 Week Value Added Course on

IETE STUDENT FORUM INAUGURAL SESSION

18/01/2021 to 23-01-2021

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Head Office: Meerpet, Hyderabad



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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 11-01-2021

Syllabus on IETE student forum inaugural session

Introduction to IETE Student Forum:

- Overview of the Institution of Electronics and Telecommunication Engineers (IETE)
- Purpose and objectives of the IETE Student Forum
- Importance of student engagement in professional organizations

Keynote Address:

- Inviting a distinguished speaker to address the audience on the significance of student involvement in the field of electronics and telecommunication
- Insights into the current trends and future prospects in the industry
- Motivational talk to inspire students to actively participate in the forum activities

Ice-breaking Session:

- Interactive activities to help students get to know each other
- Introduction of the organizing committee members and faculty advisors
- Building a sense of community among the forum members

Introduction to Forum Activities:

- Overview of the various activities planned by the forum throughout the academic year
- Technical workshops on emerging technologies
- Seminars and webinars by industry experts
- Blackthorns, competitions, and project exhibitions
- Social and networking events



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College Code: R9

Membership Drive:

- Information on how students can become members of the IETE Student Forum
- Benefits of membership, including access to resources, networking opportunities, and professional development

Q&A Session:

- Open forum for students to ask questions and clarify doubts regarding the forum and its activities
- Guidance on how students can actively contribute to the forum's success
- Feedback collection to improve future sessions and activities

Closing Remarks:

- Summary of key points discussed during the inaugural session
- Encouragement for students to stay engaged and actively participate in upcoming events
- Acknowledgment of sponsors, supporters, and volunteers
- Invitation to join for refreshments and informal networking


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Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **DINDU SAI AMULYA** bearing roll number **17R91A0456** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "IETE STUDENT FORUM INAUGURAL SESSION", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **18-01-2021** to **23-01-2021**

HOD-ECE

(Dr. SK. UMAR FARUK)



PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

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Dr. K.V. Murali Mohan

Vice-Principal & Dean-TKREC
Dr. K.M.V Madan Kumar

Head of the Department
Dr.SK Umar Faruq

VISION

- To be a centre of learning in the field of Electronics and Communication Engineering to develop competent professionals for industry and to fulfill the needs of the society

MISSION

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PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

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1 Week Value Added Course on
"IMAGE PROCESSING WITH MATLAB"

13-09-2021
to
18-09-2021

TEEGALA KRISHNA REDDY
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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 08-09-2021

Syllabus of Image Processing with MATLAB

Introduction to Digital Image Processing

1. Basics of digital images: pixels, resolution, colour models
2. Image acquisition and digitization
3. Overview of MATLAB for image processing

Image Enhancement Techniques

1. Histogram equalization
2. Spatial domain filtering (smoothing, sharpening)
3. Frequency domain filtering (FFT, frequency domain filtering)

Image Restoration

1. Image degradation and restoration models
2. Noise removal techniques (spatial domain and frequency domain)
3. Image deblurring using inverse filtering and Wiener filtering

Image Segmentation

1. Thresholding techniques
2. Edge detection (Sobel, Canny)
3. Region-based segmentation (watershed transform)

Feature Extraction and Object Recognition

1. Feature detection and description (Harris corner detection, SIFT, SURF)
2. Object recognition techniques (template matching, machine learning-based methods)
3. Introduction to deep learning-based approaches for object recognition

Advanced Topics in Image Processing

1. Morphological image processing (erosion, dilation, opening, closing)
2. Image registration and fusion
3. Medical image processing applications (MRI, CT scans)



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College Code: R9

Project Work and Presentation

1. Participants worked on a mini-project applying the concepts and techniques learned during the course
2. Project presentation: Participants presented their projects, demonstrating their understanding and proficiency in image processing with MATLAB
3. Evaluation and certificate distribution.


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Meerpet, Hyderabad - 500097

Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **PURAM AASRITHA REDDY** bearing roll number **17R91A04D7 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "IMAGE PROCESSING WITH MATLAB", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **13-09-2021 to 18-09-2021**



HOD-ECE

(Dr. SK. UMAR FARUK)





PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)

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Co-Patron

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Treasurer
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Principal-TKREC

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Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

Head of the Department

Dr.SK Umar Faruq

VISION

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**1 Week Value Added Course on
"PYTHON PROGRAMMING"**

26-07-2021

to

31-07-2021

**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 19-07-2021

Syllabus of Python programming

Course outline:

Day 1: Introduction to Python

- Overview of Python: history, features, and applications
- Setting up Python environment (using Anaconda, Jupyter Notebook, or similar)
- Basic syntax: variables, data types, and operators
- Writing and executing your first Python program

Day 2: Control Flow and Functions

- Conditional statements: if, elif, else
- Looping structures: for and while loops
- Introduction to functions: defining and calling functions
- Practice exercises to reinforce concepts

Day 3: Data Structures in Python

- Lists: creation, indexing, slicing, and methods
- Tuples: creation, accessing elements, and immutability
- Dictionaries: key-value pairs, accessing, and modifying elements
- Sets: creation, methods, and operations
- Hands-on exercises to work with data structures



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College Code: R9

Day 4: File Handling and Modules

- Reading and writing files in Python
- Introduction to modules and libraries
- Importing modules and using functions from them
- Overview of commonly used Python libraries (e.g., NumPy, Pandas)

Day 5: Object-Oriented Programming (OOP) in Python

- Understanding OOP concepts: classes, objects, inheritance, polymorphism, and encapsulation
- Creating classes and objects in Python
- Implementing inheritance and polymorphism in Python
- Practical examples and exercises to solidify OOP concepts

Day 6: Error Handling and Debugging and Mini Project and Conclusion

- Understanding exceptions and errors in Python
- Using try-except blocks for error handling
- Debugging techniques: print statements, debugging tools, and IDE features
- Best practices for writing clean and debuggable code
- Working on a mini project to apply all the concepts learned during the week
- Presenting and discussing the mini project with peers
- Recap of key learnings and resources for further learning
- Q&A session and feedback collection



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Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **MUDDAPPA NIKHIL** bearing roll number **17R91A0481** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "PYTHON PROGRAMMING", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **26-07-2021** to

31-07-2021

[Signature]

HOD-ECE

(Dr. SK. UMAR FARUK)



[Signature]

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)
Teegala Krishna Reddy Engineering College
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Meerpet, Hyderabad - 97.

OUR STRENGTH

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Chairman, TKRES

Patrons:

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Secretary, TKRES

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice-Principal & Dean:

Dr.K.M.V.Madan Kumar

Convener:

Dr.CH.V.Phani Krishna

Prof. & HOD of CSE

Coordinators:

Mr. P.V. Rama Gopala Rao

Assistant Professor, CSE,TKREC

Mr. T. Rakesh Kumar

Assistant Professor, CSE,TKREC

Organising Committee

Dr. Praveen Kumar

Assoc.Prof & Head, IT,TKREC

Dr. Vaidivelan Natarajan

Assoc.Prof & Head of AI&ML, TKREC

Dr. K. Sarangam

Assoc.Prof & Head CSD, TKREC

Dr.K.Bhargavi

Assoc.Professor,CSE,TKREC

About TKREC:

TKR Engineering College – a modern temple of learning, an Off shoot of the TKR Educational Society was established in the year 2005 in a sprawling, lush green 20 acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

Department of CSE was Established in the year 2005, and Offers B.Tech degree in CSE with an intake of 240, MTech in CSE with an intake of 24. It has Sophisticated infrastructural, state-of-art labs and experienced faculty. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programmes, industrial tours and visits, etc. In view of all these academic activities, the department has been accredited by NBA.

VISION:

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological society.



A Value-added Course On Professional Ethics

15-03-2021

Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC – 'A',
Affiliated to JNTUH, Hyderabad, Telangana)

Resource Persons: MR. A.MAHESH
Professor CSE



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College Code: R9

Syllabus of Value-added Course on Professional Ethics

Day 1 Unit 1: Introduction to Professional Ethics:

1. Basic Concepts, Governing Ethics,
2. Personal & Professional Ethics,
3. Ethical Dilemmas, Life Skills,
4. Emotional Intelligence,

Day 2

- 1.Thoughts of Ethics,
- 2.Value Education, Dimensions of Ethics,
- 3.Profession and professionalism, Professional Associations,
- 4.Professional Risks, Professional Accountabilities, Professional Success, Ethics and Profession

Day 3 UNIT – II Basic Theories:

1. Basic Ethical Principles,
2. Moral Developments,
- 3.Deontology, Utilitarianism,
4. Virtue Theory, Rights Theory,

Day 4

- 1.Casuist Theory, Moral Absolution,
- 2.Moral Rationalism, Moral Pluralism,
- 3.Ethical Egoism, Feminist Consequentialism,
- 4.Moral Issues, Moral Dilemmas, Moral Autonomy.

Day 5 UNIT – III

- 1.Professional Practices in Engineering:
2. Professions and Norms of Professional Conduct,
3. Norms of Professional Conduct vs. Profession;
- 4.Responsibilities, Obligations and Moral Values in Professional Ethics,

Day 6

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)

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Accredited by NAAC with 'A' Grade, Accredited by NBA)



TKREC
TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

1. Professional codes of ethics, the limits of predictability and responsibilities of the engineering profession.
2. Central Responsibilities of Engineers - The Centrality of Responsibilities of Professional Ethics;
3. Lessons from 1979 American Airlines DC- 10 Crash and Kansas City Hyatt Regency Walk away Collapse.

Day 7 UNIT – IV Work Place Rights & Responsibilities:

1. Ethics in changing domains of Research, Engineers and Managers;
2. Organizational Complaint Procedure, difference of Professional Judgment within the Nuclear Regulatory Commission (NRC),
3. the Hanford Nuclear Reservation.
4. Ethics in changing domains of research - The US government wide definition of research misconduct,

Day 8

1. research misconduct distinguished from mistakes and errors,
2. recent history of attention to research misconduct,
3. the emerging emphasis on understanding and fostering responsible conduct,
4. responsible authorship, reviewing & editing.



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC- AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.

HOD-CSE

Dr. C. V. Prasad KRISHNAPATI
Head of the Department
Computer Science and Engineering
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Hyderabad - 500097



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that BEGARI RAJU bearing roll number 18R91A05C1 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "Professional Ethics", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 15-03-2021 to 22-03-2021.

CH

HOD-CSE

(Dr.CH. V. Phani krishna)



PRINCIPAL

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(UGC-AUTONOMOUS)
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Hyderabad - 97.

(Dr.K. Venkata Murali Mohan)

OUR STRENGTH

Chief Patron

How Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

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Secretary, TKRES
Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice-Principal & Dean:

Dr. K.M.V. Madan Kumar

Convener :

Dr. CH.V. Phani Krishna
Prof & HOD of CSE

Coordinators:

Mr. P.V. Rama Goopala Rao
Assistant Professor, CSE, TKREC
Mr. T. Rakesh Kumar
Assistant Professor, CSE, TKREC

Organising Committee

Dr. Praveen Kumar
Assoe. Prof & Head, IT, TKREC
Dr. Vaidiclan Natarajan
Assoe. Prof & Head of AI&ML, TKREC
Dr. K. Sarangata
Assoe. Prof & Head CSD, TKREC
Dr. K. Bharagavi
Assoe. Professor, CSE, TKREC

About TKREC:

TKR Engineering College - a modern temple of learning, an Off shoot of the TKR Educational Society was established in the year 2005 in a sprawling, lush green 20 acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

Department of CSE was Established in the year 2005, and Offers B.Tech degree in CSE with an intake of 240, MTech in CSE with an intake of 24. It has Sophisticated infrastructural, state-of-art labs and experienced faculty. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programmes, industrial tours and visits, etc. In view of all these academic activities, the department has been accredited by NBA.

VISION

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological society.



PRINCIPAL

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A Value-added Course on Chatbots

17th-Dec-2020

Organized by



Department of CSE
TEEGALA KRISHNA REDDY ENGINEERING
COLLEGE

(Approved by AICTE, accredited by NBA & NAAC - 'A',
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Resource Persons: MR. YLN RAO,
Professor CSE



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College Code: R9

Syllabus of Value-added Course on CHATBOTS

Day 1: UNIT- I

1. Introduction to Chatbots: Definition of chatbots
2. Journey of Chatbots
3. Rise of Chatbots
4. Messaging Platforms.

Day 2 UNIT- II:

5. Setting Up the Developer Environment Botframework: Local Installation
6. Installing NodeJS

Day 3:

7. Following the Development Pipeline
8. Storing Messages in Database.

Day 4 UNIT - III:

1. Basics of Bot Building- Intents
- 2.Entities.

Day 5 UNIT IV:

- 1.Advanced Bot Building: Design Principles
2. Showing Product Results
- 3.Saving Messages
4. Building Your Own Intent Classifier.

Day 6 UNIT - V:

- 1.Business and Monetization:
2. Analytics, Chatbot Use Cases
- 3.- Modes of Communication-

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College Code: R9

4. Business-toBusiness (B2B)

Day 7:

5. ChapBusiness-to-Consumer (B2C)

6. Consumer-to-Consumer (C2C)



C. S. R.
HOD-CSE

Dr. CH. V. RAM KRISHNA
Head of the Department
Computer Science and Engineering
TKREC, Medbowli, Balapur, Hyderabad - 500097

[Signature]
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Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

*This is to certify that **BODHU NITHIN** bearing roll number **19R91A1209 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "Chatbots", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 17-12-2020 to 24-12-2020.*

CJK

HOD-CSE

(Dr. J. Praveen Kumar)



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad
PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

OUR STRENGTH

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Chairman, TKRES

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Secretary, TKRES

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K.M.V. Madan Kumar

Convener:

Dr. Ch.V. Phani Krishna

Prof. & HOD of CSE

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Mr. T. Rakesh Kumar

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Organising Committee

Dr. Praveen Kumar

Assoc.Prof & Head, IT, TKREC

Dr. Vadivelan Natarajan

Assoc.Prof & Head of AI&ML, TKREC

Dr. K. Sarangam

Assoc.Prof & Head CSD, TKREC

Dr. K. Bhargavi

Assoc. Professor, CSE, TKREC

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About Department:

Department of CSE was established in the year 2005, and offers B.Tech degree in CSE with an intake of 240, MTech in CSE with an intake of 24. It has sophisticated infrastructural, state-of-art labs and experienced faculty. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programmes, industrial tours and visits, etc. In view of all these academic activities, the department has been accredited by NBA.

VISION:

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological society.

A Value-added Course

On

Gaming and Virtual Reality

22-06-2020

Organized by

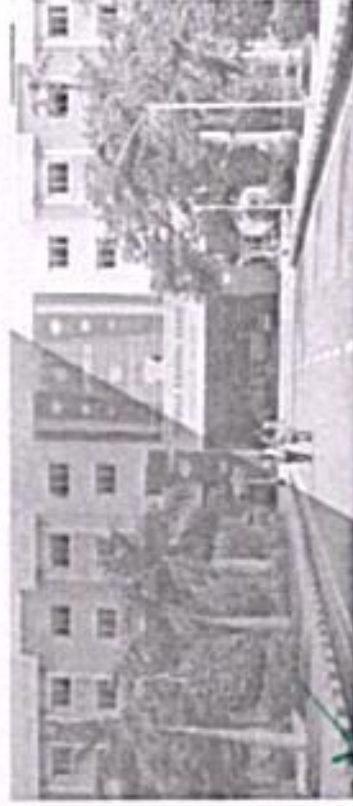


Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC – 'A',
Affiliated to JNTUH, Hyderabad, Telangana)

Resource Persons: **MR.B. VARUN CHANDRA**

Professor CSE



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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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College Code: R9

Syllabus of Value-added Course on GAMING AND VIRTUAL REALITY

Day 1: Introduction to Gaming and Virtual Reality

- 1) Overview of gaming and virtual reality technology
- 2) History and evolution of gaming and VR
- 3) Applications of gaming and VR in various industries

Day 2: Game Design Principles

- 1) Elements of game design (e.g., mechanics, dynamics, aesthetics)
- 2) Player motivation and engagement
- 3) User-centered design principles

Day 3: Game Development Tools and Platforms

- 1) Introduction to game engines (e.g., Unity, Unreal Engine)
- 2) Basics of 3D modelling and animation
- 3) Programming languages for game development (e.g., C#, JavaScript)

Day 4 : Virtual Reality (VR) Development

- 1) Introduction to VR hardware (e.g., Oculus Rift, HTC Vive)
- 2) VR interaction design principles
- 3) Developing VR applications using Unity or other platforms

Day 5 : Psychology of Gaming and VR

- 1) Player behaviour and motivation
- 2) Cognitive aspects of gaming and VR
- 3) Ethical considerations in gaming and VR design

Day 6: User Experience (UX) in Gaming and VR

- 1) Principles of UX design for games and VR experiences
- 2) Usability testing and evaluation
- 3) Accessibility considerations

Day 7: Game Development Project

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College Code: R9

- 1) Students work on a game development project individually or in teams
- 2) Design, implementation, and testing phases
- 3) Iterative development process based on feedback

Day 8: Virtual Reality Project

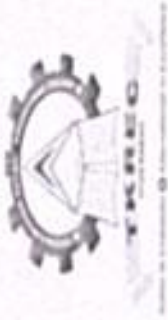
- 1) Students work on a VR development project individually or in teams
- 2) Designing immersive VR environments and interactions
- 3) Integration of hardware and software components

G.M
HOD-CSE

Dr. K. M. Srinivas Reddy
Head, CSE Department
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Hyderabad - 500097



Srinivas
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Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that EKEE ANKITHA bearing roll number 18R91A0577 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "Gaming and Virtual Reality", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 22-06-2020 to 29-06-2020.

C.V.V.

HOD-CSE

(Dr.CH. V. Phani krishna)



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PRINCIPAL-TKREC

(Dr.K. Venkata Murall Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

ACCREDITED BY AICTE, UGC, SVKM'S, & COEP (MUMBAI) FOR THE
DEGREE COURSE IN INFORMATION TECHNOLOGY

One week Workshop on Big Data Analytics

OBJECTIVES OF THE WORKSHOP

This workshop provides participants with valuable insights, strategies, and tools to enhance their personal and professional lives. The workshop aims to inspire and empower individuals to achieve their goals, overcome challenges, and thrive in various aspects of life.

Date: 18-01-2021 to 23-01-2021

Organizing By

Department of IT



About TKREC:

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About Department :

VISION

The program aims at creating capable engineering professionals to meet the flourishing needs of the Industry and society in the field of Information Technology.

MISSION

Impart adequate employability skills to make the students industry ready with global standards.
Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

Resource Person:

**A.Narsi Reddy,
Legato, Hyderabad**

WV

OUR STRENGTH

Chief Patron:

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patron:

Dr. Teegala Harinath Reddy
Secretary, TKRES

Co-Patron:

Sri. Teegala Amarnath Reddy
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Dr. K.V. Murali Mohan

Vice-Principal & Dean of Academics:

Dr. K.M.V. Madan Kumar

Convener:

Dr. J. Praveen Kumar

HOD of IT

Coordinators:

Mrs. S. Pavani

Assistant Professor, TKREC

Mrs. K. Hymavathi

Assistant Professor, IT, TKREC

Mob: 9393959597.

Email: info@tkrec.ac.in,

deanacademics@tkrec.ac.in

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Date: 16-01-2021

Syllabus of Big Data Analytics:

Introduction to Big Data

1. Overview of big data concepts, characteristics, and challenges
2. Understanding the three Vs of big data: volume, velocity, variety
3. Introduction to big data technologies and ecosystems (Hadoop, Spark, etc.)
4. Hands-on session: Setting up a local big data environment using Hadoop or Spark

Big Data Storage and Processing

1. Overview of big data storage solutions: HDFS, NoSQL databases (MongoDB, Cassandra)
2. Batch processing vs. real-time processing in big data
3. Introduction to Apache Hadoop ecosystem: MapReduce, HDFS, YARN
4. Hands-on session: Storing and processing large datasets using Hadoop MapReduce

Introduction to Apache Spark

1. Understanding Apache Spark: features, architecture, and components
2. Introduction to Spark RDDs (Resilient Distributed Datasets)
3. Spark transformations and actions for data processing
4. Hands-on session: Performing data analysis using Spark RDDs and Spark SQL

Big Data Analytics Techniques

1. Overview of big data analytics techniques: descriptive, diagnostic, predictive, prescriptive analytics
2. Data visualization and exploratory data analysis (EDA)
3. Introduction to machine learning algorithms for big data analytics
4. Hands-on session: Implementing data analytics techniques using Python libraries (NumPy, Pandas, Matplotlib)

Advanced Analytics with Spark MLlib

1. Introduction to Spark MLlib (Machine Learning Library)
2. Building and evaluating machine learning models using Spark MLlib
3. Feature engineering and model tuning techniques

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)



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College Code: R9

4. Hands-on session: Building predictive models for real-world datasets using Spark MLlib

Real-time Analytics with Spark Streaming

1. Introduction to Spark Streaming: features, architecture, and use cases
2. Real-time data processing and analytics with Spark Streaming
3. Integrating Spark Streaming with external data sources (Kafka, Flume)
4. Hands-on session: Building real-time analytics applications using Spark Streaming

Project Work and Presentation

1. Participants work on a big data analytics project of their choice, applying the concepts and skills learned throughout the course
2. Project presentations: Participants showcase their projects, discussing their methodologies, results, and insights
3. Course conclusion: Recap of key learnings, feedback collection, and certificate distribution

JPL
Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **KANCHARLA DEEPTHI** bearing roll number **18R91A1225** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Big Data Analytics**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **18-01-2021** to **23-01-2021**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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One week Workshop on Web Application Development

OBJECTIVES OF THE WORKSHOP

This Workshop Teach participants about front-end technologies and frameworks, such as React, Angular, or Vue.js, to develop interactive and user-friendly web interfaces
Introduce participants to back-end technologies like Node.js, Django, Ruby on Rails, or PHP, which are essential for building server-side logic and handling data

Date: 12-05-2021 to 17-05-2021
Organizing By
Department of IT



About TKREC:

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About Department :

VISION

The program aims at creating capable engineering professionals to meet the flourishing needs of the industry and society in the field of Information Technology.

MISSION

Impart adequate employability skills to make the students industry ready with global standards.
Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

Resource Person:

G.Srikanth,
Mathrusri College of
Engineering

Worship

OUR STRENGTH

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Dr. Teegala Harinath Reddy
Secretary, TKRES

Co-Patron:

Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr K. V. Murali Mohan

Vice-Principal & Dean of Academics:

Dr K. M. V Madan Kumar

Convener:

Dr. J. Praveen Kumar
HOD of IT

Coordinators:

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Mrs K. Hymavathi

Assistant Professor, IT, TKREC

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deanacademics@tkrec.ac.in

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



TKREC
TEEGALA KRISHNA REDDY ENGINEERING COLLEGE



College Code: R9

Date: 10-05-2021

Syllabus of Web Application Development:

Introduction to Web Development

1. Overview of web development concepts, technologies, and tools
2. Introduction to front-end development: HTML, CSS, JavaScript
3. Basics of version control using Git and GitHub
4. Hands-on session: Setting up the development environment and creating a simple web page

Front-End Development

1. Advanced HTML and CSS techniques for responsive web design
2. Introduction to CSS frameworks (e.g., Bootstrap) for rapid prototyping
3. JavaScript fundamentals: variables, functions, DOM manipulation
4. Hands-on session: Building interactive web pages using HTML, CSS, and JavaScript

Back-End Development with Node.js

1. Introduction to server-side programming with Node.js
2. Building RESTful APIs with Express.js framework
3. Handling HTTP requests and responses in Node.js
4. Hands-on session: Creating a simple RESTful API with Node.js and Express.js

Database Integration

1. Overview of relational and non-relational databases
2. Introduction to MongoDB for NoSQL database integration
3. Connecting Node.js applications to MongoDB database
4. Hands-on session: Implementing CRUD operations with MongoDB and Node.js

Authentication and Authorization

1. User authentication and authorization concepts
2. Introduction to JSON Web Tokens (JWT) for session management
3. Implementing authentication and authorization in Node.js applications
4. Hands-on session: Securing web applications with JWT-based authentication

Web Application Security

1. Common security threats and vulnerabilities in web applications

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC-Autonomous)



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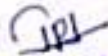


College Code: R9

2. Best practices for securing web applications: input validation, HTTPS, etc.
3. Cross-Site Scripting (XSS) and Cross-Site Request Forgery (CSRF) prevention techniques
4. Hands-on session: Implementing security measures in web applications

Deployment and Project Presentation

1. Introduction to web application deployment strategies
2. Deploying web applications to cloud platforms (e.g., Heroku, AWS)
3. Project work: Participants work on a web application project of their choice
4. Project presentations: Participants showcase their projects, discussing their methodologies, results, and insights
5. Course conclusion: Recap of key learnings, feedback collection, and certificate distribution


Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College,
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **KOTHA ADITYA** bearing roll number **18R91A1231** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Web Application Development**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **12-05-2021** to **17-05-2021**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

100% AUTONOMOUS

Approved by AICTE, New Delhi, India. Affiliated to JNTU, Hyderabad, India.
Established by TKR Educational Society, Meerpet, Hyderabad, India.

One week Workshop ON Internet of Things(IoT)

OBJECTIVES OF THE WORKSHOP

This workshop provides participants with a comprehensive understanding of the fundamental concepts and principles of the Internet of Things, including its definition, components, and applications.

Offer participants practical, hands-on experiences with IoT devices, sensors, and communication protocols. This could involve building simple IoT projects or working with development boards to gain a better understanding of how IoT devices function.

Date: 18-04-2021 to 23-04-2021

Organizing By
Department of IT

About TKREC:

TKR Engineering College – a modern temple of learning, an offshoot of the TKR Educational Society was established in the year 2002 in sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on their faces and emerge victorious.

About Department :

VISION

The program aims at creating capable engineering professionals to meet the flourishing needs of the Industry and society in the field of Information Technology.

MISSION

Impart adequate employability skills to make the students industry ready with global standards.
Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

OUR STRENGTH

Chief Patron:

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patron:

Dr. Teegala Harinath Reddy
Secretary, TKRES

Co-Patron:

Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean of Academics:

Dr. K. M. V. Madan Kumar

Convener:

Dr. J. Praveen Kumar
HOD of IT

Coordinators:

MR. J. Sudheer Kumar
Assistant Professor, TKREC

Mrs. K. Hymavathi

Assistant Professor, IT, TKREC

Mob: 9393959597.

Email: info@tkrec.ac.in,

deanacademics@tkrec.ac.in



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

(Sponsored by TKR Educational Society, Approved by AICTE, Affiliated to JNTUH
Accredited by NAAC with 'A' Grade, Accredited by NBA)

Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097

Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Date: 16-04-2021

Syllabus of Internet of Things:

Introduction to Internet of Things

1. Overview of IoT concepts, evolution, and significance
2. Understanding the IoT ecosystem: devices, sensors, actuators, gateways, and cloud platforms
3. Applications and use cases of IoT across various industries
4. Hands-on session: Introduction to IoT hardware and software components

IoT Architecture and Communication Protocols

1. Architecture layers of IoT systems: perception, network, middleware, and application layers
2. Communication protocols for IoT: MQTT, CoAP, HTTP, and WebSocket
3. Introduction to IoT gateways and edge computing
4. Hands-on session: Setting up IoT communication using MQTT protocol

Sensor Networks and Data Acquisition

1. Introduction to sensor networks: types of sensors, data acquisition methods
2. Sensor data processing and interpretation
3. Hands-on session: Collecting sensor data from IoT devices and transmitting it to cloud platforms

Data Analytics and Visualization in IoT

1. Introduction to IoT data analytics: real-time and batch processing
2. Data storage and management in IoT systems
3. Visualization techniques for IoT data insights
4. Hands-on session: Analyzing and visualizing sensor data using IoT analytics tools

IoT Security and Privacy

1. Security challenges and considerations in IoT deployments
2. Authentication, authorization, and encryption techniques for IoT security
3. Privacy concerns and regulatory compliance in IoT
4. Hands-on session: Implementing IoT security measures and protocols

IoT Platforms and Application Development

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

1. Overview of IoT platforms: cloud-based platforms, edge platforms, and open-source frameworks
2. Introduction to IoT development tools and programming languages
3. Building IoT applications for monitoring, control, and automation
4. Hands-on session: Developing and deploying IoT applications using popular IoT platforms

Project Work and Presentation

1. Participants work on an IoT project of their choice, applying the concepts and skills learned throughout the course
2. Project presentations: Participants showcase their projects, discussing their methodologies, results, and insights
3. Course conclusion: Recap of key learnings, feedback collection, and certificate distribution

GP
Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **NAGAMALLI BHAVANI** bearing roll number **19R95A1202** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Internet of Things**", organized by **Department of Information Technology, Teegala Krishna Reddy Engineering College, Hyderabad, from 18-01-2021 to 23-04-2021.**

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)

OUR STRENGTHH

Chief Patron

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy

Secretary, TKRES

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K. M. V. Madan Kumar

Convener:

Mr. V. Surya Narayana

Prof & HOD of MBA

Coordinator:

Mr. P. Deepak Goud

Assistant Professor, MBA, TKREC

About TKREC:

TKR Engineering College – a modern temple of learning, an offshoot of the TKR Educational Society was established in the year 2002 in a sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

TKREC MBA was established in the year 2007 with the approval of AICTE, New Delhi offers two year full-time MBA Programme, which is affiliated to Jawaharlal Nehru Technological University, Hyderabad with an intake of 60 in Management. The institute has carved a niche for itself, within a short period of time, among a host of management institutions. To accomplish the mission of Indian in values & International in excellence, with excellent infrastructure and competent faculty, TKREC MBA is imparting quality management education. The prime focus is on application of knowledge, development of positive attitude, diverse skills and competencies among the students. Pedagogy includes lectures, case discussions, Role-plays and simulation..

VISION:

Striving for an outstanding value based quality education, developing entrepreneurial skills to become global managers and continue to hold passion for knowledge-sharing in all facets of management education, embedding Indian culture and societal values.

**A Value-Added Course
On**

**Strong Work Ethics
(02-11-2020 to 06-11-2020)**

**Organized by
MR.V.Surya Narayana**



**Department of MBA
TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

**(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)**

Resource Person: Mr. Muralidharan



WVPRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Madhavali, Meerpet, Hyderabad - 501 005



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Strong Work Ethics

Day 1: Introduction to Work Ethics

1. Define work ethics and its significance in the workplace
2. Explore historical and cultural perspectives on work ethics
3. Discuss the relationship between personal values and work ethics

Day 2: Ethical Theories and Frameworks

1. Introduce major ethical theories
2. Analyze ethical dilemmas using ethical frameworks,
3. Apply ethical theories to real-world workplace scenarios.

Day 3: Professionalism and Integrity

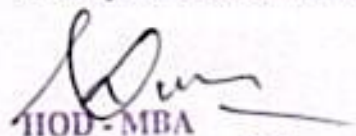
1. Define professionalism and integrity in the context of work
2. Discuss the importance of honesty, trustworthiness, and reliability
3. Examine the role of integrity in building professional reputation and credibility.

Day 4: Accountability and Responsibility

1. Explore the concept of accountability and its significance in the workplace
2. Identify strategies for taking responsibility for one's actions and decisions.

Day 5: Ethical Leadership and Decision Making

1. Analyze case studies of ethical and unethical leadership practices
2. Examine the characteristics of ethical leadership
3. Develop skills for ethical decision-making in leadership roles.


HOD - MBA

Teegala Krishna Reddy Engg. College
S.B. Medbowli, Meerpet,
Saroonagar, Hyderabad - 500079, A.P.

WVW



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NATIONAL BOARD
OF ACCREDITATION

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of MBA

Certificate of Completion

This is to certify that **B.PAVAN** bearing roll number **19R91E0001** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**STRONG WORK ETHICS**", organized by Department MBA Teegala Krishna Reddy Engineering College, Hyderabad, from **2-11-2020 to 06-11-2020**.

HOD-MBA

(Mr.V.Surya Narayana)

PRINCIPAL-TKREC

(Dr.K.Venkata Murali Mohan)



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

OUR STRENGTH

Chief Patron

Hon. Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy
Secretary, TKRES
Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K. M. V. Madan Kumar

Convenor:

Mr. M. D. Muneeruddin Khan
Assistant Professor & JCD of CE

Coordinator:

Mr. N. Chandra Gupta
Assistant Professor, CE, TKREC



About TKREC:

TKR Engineering College - a modern temple of learning, an off shoot of the TKR Educational Society was established in the year 2002 in a sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

The department was established in the year of 2009 with an intake of 60 students now its 176. The Department offers a four-year UG course leading to B.Tech in Civil Engineering. The department has energetic and experienced faculty (Industrial & Teaching) for the benefit of the students and to promote R&D. The department has conducted National Conferences, Workshops, Seminars, Guest lectures, Industrial & Field Visits, etc to update the Technical knowledge of students. The department has fully equipped laboratories and all infrastructures to track the academic performance.

VISION:

To impart technical knowledge in the field of civil engineering and expose the graduate students to the technology.

A Value-Added Course

On
Professional Ethics and
Human Values
(04-11-2019 to 11-11-2019)

Organized by
Mr. M. D. Muneeruddin Khan

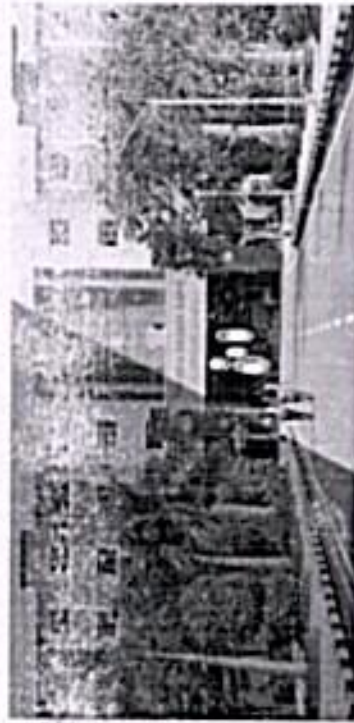


Department of CIVIL

TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE

(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)

Resource Person: Mr. Y SRINIVAS



PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC)



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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on Professional Ethics and Human Values

Day 1: Introduction to Ethics and Values:

- Definition and significance of ethics and values
- Differentiating between ethics, morality, and legality
- Understanding the role of values in professional and personal life

Day 2: Ethical Theories:

- Utilitarianism: The greatest good for the greatest number
- Deontological ethics: Duty-based moral reasoning (e.g., Kantian ethics)
- Virtue ethics: Character-based approach to ethics (e.g., Aristotle)
- Ethical relativism vs. ethical absolutism

Day 3: Professional Codes of Ethics:

- Introduction to professional codes of conduct and ethics in various fields (e.g., engineering, medicine, law, business)
- Analysis of specific codes of ethics and their applications
- Case studies illustrating ethical dilemmas in different professions

Day 4: Ethical Decision Making:

- Steps in ethical decision-making process (e.g., identification of ethical issues, consideration of consequences, stakeholder analysis)
- Ethical decision-making frameworks and models
- Role-playing exercises and simulations to practice ethical decision making

Day 5: Ethical Leadership and Corporate Governance:

- Characteristics of ethical leadership
- Importance of ethics in corporate governance
- Case studies on ethical leadership and corporate scandals

Day 6: Social Responsibility and Sustainability:

- Understanding corporate social responsibility (CSR) and its components
- Environmental ethics and sustainability
- Ethical considerations in business practices and decision making

Day 7: Professional Integrity and Accountability:

- Importance of integrity and accountability in professional settings
- Handling conflicts of interest and maintaining professional integrity
- Ethical implications of whistleblowing and reporting misconduct



PRINCIPAL
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Medbowli, Meerpet, Hyderabad - 97.

HEAD OF THE DEPARTMENT
Department of Civil Engineering
Teegala Krishna Reddy Engineering College,
Meerpet, Saroor Nagar, Hyderabad-97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC)

Meerpet, Hyderabad - 500097

Department of Civil Engineering


Certificate of Completion

This is to certify that **BANDARI SWAPNEEL** bearing roll number **17R91A0104** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "Professional Ethics and Human Values", organized by Department of Civil Engineering, Teegala Krishna Reddy Engineering College, Hyderabad from **04th - 11th June, 2019**.




HOD-CE
(**MD.MUNEERUDDINHAN**)


PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.


PRINCIPAL-TKREC
(**Dr.K.VenkataMuraliMohan**)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Medbowli, Meerpet, Sarcoorugur, Hyderabad-500037
Phone: 040-24092838 Fax: +91-040-24092555
Email: tkred@rediffmail.com Website: www.tkrec.ac.in

About the Institution:

Teegala Krishna Reddy Engineering College (TKREC) was founded in the year 2005 by the TKR Educational Society established in 2001 under the dynamic leadership of Sri. Teegala Krishna Reddy, M.A., with prime motto of educating people with strong basic knowledge. Teegala Krishna Reddy Engineering College (TKREC) was established with a vision of imparting knowledge and instilling skills to aspiring students in the fields of Engineering, Technology, Science, and Management to face the emerging challenges of society. The college offers diploma courses in EEE, ECE, CME, CE, and UG courses in CE, EEE, ECE, CSE, IT, and PG courses in M.TECH and M.B.A.

About the Department:

The Department of Electrical and Electronics Engineering was started in 2005, with an intake of 60. A vision of striving to provide quality education and train students in contemporary technologies, to meet the needs and demands of global industry shaping them into skillful engineers imbued with professional ethics. The department is run by well-qualified and experienced faculty committed to training students to realize the importance of the latest.



VALUE ADDED COURSE

On

Technical Skills and Development

From 10th February to 14th February 2020.

About the course:

Technical skills are the specialized knowledge and expertise required to perform specific tasks and use specific tools and programs in real-world situations. Diverse technical skills are required in just about every field and industry, from IT and business administration to health care and education.

Organizing Committee:
Chief Patron: Sri. Teegala Krishna Reddy,
CHAIRMAN, TKREC,
Patrons: Dr. T. Harinath Reddy,
SECRETARY, TKRES,
Sri T. Amarnath Reddy,
TREASURER, TKRES,
Dr. S. B. Rama Sanyal
DIRECTOR, TKRES.

Chairman: Dr. P. Ram Mohan Rao
PRINCIPAL, TKREC.

Advisory
Committee: K. Soudara Rajan,
PROF., & asst. DEAN (R&D&D)
A.V. Prabhakar Kumar

Venue & Duration:
Auditorium: R9
Timing: 10:00 am to 3:00 pm
For further information contact:
Coordinator

Mr. B. Ramesh,
Asst. Prof. EEE Dept.,
7386706616.

T.MADHU BABU,
Head of the Department - EEE, TKREC
Ph No: +91-9106476450
E-Mail: eeedepttkrec@gmail.com
Web: www.tkrec.ac.in



PRINCIPAL
Teegala Krishna Reddy Engineering Coll
Medbowli, Meerpet, Hyderabad

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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097

Mob: 8498085218, Email: info@tkrec.ac.in, www.tkrec.ac.in

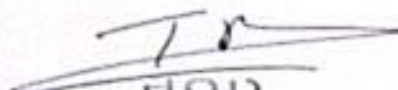
Department of Electrical and Electronics Engineering




College Code: R9

Syllabus of Value-added Course on Technical Skills and Development

1. Programming
2. Artificial Intelligence
3. Data Analysis
4. Machine Learning
5. Cybersecurity
6. Web Development
7. Cloud Computing
8. Mobile App Development
9. Software Testing
10. Network Administration


HOD
Electrical and Electronics Engineering
TKR Engineering College
Meerpet, Hyderabad-500 079


PRINCIPAL
Tegala Krishna Reddy Engineering Coll
Medbowli, Meerpet, Hyderabad



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OF ACCREDITATION



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering

Certificate of Completion

This is to certify that **NADDIPALLI ANUSHA** bearing with roll number **17R91A0260** of Teegala Krishna Reddy Engineering College has been completed the course on "*Technical Skills and Development*", organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 10th February to 14th February 2020.



HOD-EEE
(T. Madhu Babu)



PRINCIPAL
Teegala Krishna Reddy Engineering Coll
Meerpet, Hyderabad



PRINCIPAL-TKREC
(Dr. K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Affiliated by JNTU, Accredited by NBA & NAAC)

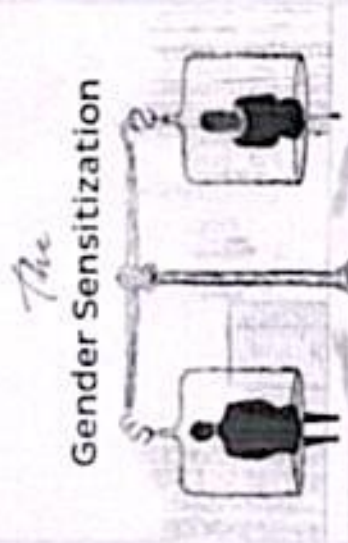
Medibowli, Meerpel, Sarcoomagar, Hyderabad-500097
Phone: 040-24092838 Fax: +91-040-24092555
Email: tkrec@rediffmail.com Website: www.tkrec.ac.in

About the Institution:

Teegala Krishna Reddy Engineering College (TKREC) was founded in the year 2005 by the TKR Educational Society established in 2001 under the dynamic leadership of Sri. Teegala Krishna Reddy, M.A., with prime motto of educating people with strong basic knowledge. Teegala Krishna Reddy Engineering College (TKREC) was established with a vision of imparting knowledge and instilling skills to aspiring students in the fields of Engineering, Technology, Science, and Management to face the emerging challenges of society. The college offers diploma courses in EEE, ECE, CME, CE, and UG courses in CE, EEE, ECT, CSE, IT, and PG courses in M.TECH and M.B.A.

About the Department:

The Department of Electrical and Electronics Engineering was started in 2005, with an intake of 60. A vision of striving to provide quality education and train students in contemporary technologies, to meet the needs and demands of global industry shaping them into skilful engineers imbued with professional ethics. The department is run by well-qualified and experienced faculty committed to training students to realize the importance of the latest



Gender Sensitization

VALUE ADDED COURSE

On

GENDER SENSITIZATION

from 5th August to 9th August, 2019.

About the course:

Gender sensitization is the process teaching of gender sensitivity and encouragement of behavior modification through raising awareness of gender equality concerns. In other words, it is the process of making people aware of gender equality or the lack of to the need to eliminate gender discrimination.

Organizing Committee:
Chief Patron: Sri. Teegala Krishna Reddy.

CHAIRMAN, TKREC
Patron: Dr. J. Harinaray Reddy.
SECRETARY, TKREC,
Sri. Anurath Reddy.
TREASURER, TKREC,
Dr. S.R. Rama Swamy
DIRECTOR, TKREC.

Chairman: Dr. P. Ram Mohan Rao
PRINCIPAL, TKREC.

Advisory

Committee: K. Sundara Rajan,
PROF. & PROF. DEAN (R&D)
A.V. Prathap Kumar

Venue & Duration:

Auditorium: RY
Timing: 10:00 am to 08 pm
For further information contact:

Coordinator

Mr. B. Ramiah,
Asst. Prof. EEE Dept,
7386706416.
T. MADHU BABU,
Head of the Department - EEE, TKREC
Ph. No: +91-8106476450
E-Mail: eeedepttkrec@gmail.com
Web: www.tkrec.ac.in



PRINCIPAL

Teegala Krishna Reddy Engineering College
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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC)

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in
Department of Electrical and Electronics Engineering



College Code: R9

Syllabus of Value-added Course on Gender Sensitization

1. Understanding Gender and Related Concepts

- Gender: Sex vs. Gender, Social construction of Gender, Gender Roles, Gender Stereotypes, Gender division of Labour
- Patriarchy
- House Work
- Gender Based Violence
- Sexualities
- Inter Sectionally
- Gender, Caste & Class

2. Gender Sensitization

- Gender Sensitization: Meaning, Nature & importance
- Challenges before Gender Sensitization
- practices for Gender Sensitization

3. Towards Equality: Convention & Declaration

- Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW)
- Declaration on the Elimination of Violence Against Women (DEVAW)

4. Towards Equality: Constitutional Provisions and Acts

- Gender Equality: Constitutional Provisions
- Protection of Women from Domestic Violence Act, 2005
- Protection of Children from Sexual Offences Act, 2012
- Sexual Harassment of Women at Workplace (Prevention)
- Prohibition and Redressal Act, 2013

[Handwritten Signature]

PRINCIPAL

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(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.

[Handwritten Signature]

HOD

Department of Electrical and Electronics Engineering
TKR Engineering College
Meerpet, Hyderabad-500 079



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering

Certificate of Completion

This is to certify that **SACHIN MURKE** bearing with roll number **17R91A0252** of Teegala Krishna Reddy Engineering College has been completed the course on "**GENDER SENSITIZATION**", organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 5th August to 9th August, 2019.

HOD-EEE
(T. Madhu Babu)



PRINCIPAL-TKREC
(Dr. K. Venkata Murali Mohan)

PRINCIPAL
Teegala Krishna Reddy Engineering College
(Dr. K. Venkata Murali Mohan)

(UGC-AUTONOMOUS)
Meerpet, Meerpet, Hyderabad - 97.

Chief Patron
Sri Teegala Krishna Reddy

Chairman
TKR Educational Society

Patron

Dr. T. Harinath Reddy

Secretary
TKR Educational Society

Co-Patron

Sri. T. Amarnath Reddy

Treasurer
TKR Educational Society

Principal-TKREC

Dr. K.V. Murali Mohan

Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

HEAD OF THE DEPARTMENT

Dr.SK.Umar Faruq

VISION

- To be a centre of learning in the field of Electronics and Communication Engineering to develop competent professionals for industry and to fulfill the needs of the society

MISSION

- To impart quality education through effective teaching learning process
- To provide essential inter-disciplinary technology to make the students readily employable
- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- PEO1: The graduates will be able to adopt emerging technology for career development
- PEO2: The graduate will be able to develop professional skills and sense of social responsibility that paves them a way to secure key position
- PEO3: The graduate will have the capability to analyze real life problems of the society and propose innovative solutions

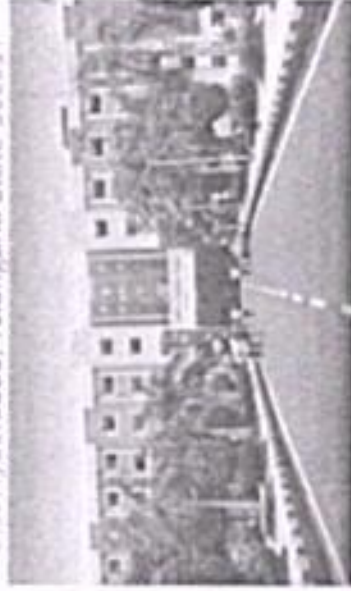
1 Week Value Added Course on

HANDS ON PROGRAMME ON CADENCE TOOLS

22/07/2019 to 27-07-2019

**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

(Approved by AICTE, NBA & NAAC -A Grade.
Affiliated to JNTUH)
Medbowli, Meerpet, Saroornagar, Ranga Reddy
Dist Hyderabad, Telangana State-500097



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PRINCIPAL

Teggala Krishna Reddy Engineering College
Medbowli, Meerpet, Hyderabad





TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 15-07-2019

Syllabus on CADENCE Tools

Day 1: Introduction to Cadence Tools

- Overview of Cadence tools suite
- Introduction to Virtuoso Schematic Editor
- Basic components and schematic entry
- Design hierarchy and organization
- Hands-on practice: Creating a simple schematic design

Day 2: Simulation with Spectre

- Introduction to Spectre simulator
- Basic simulation setup
- Transient analysis
- DC and AC analysis
- Hands-on practice: Simulating basic circuits with Spectre

Day 3: Layout Design with Virtuoso Layout Editor

- Introduction to Virtuoso Layout Editor
- Basic layout design techniques
- Layout connectivity and design rules
- Hands-on practice: Creating layout designs based on previously simulated schematics

Day 4: Physical Verification with Calibre

- Introduction to Calibre physical verification tool





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College Code: R9

- Setting up DRC (Design Rule Check) and LVS (Layout vs. Schematic) checks
- Running DRC and LVS checks
- Debugging DRC and LVS errors
- Hands-on practice: Performing DRC and LVS checks on layout designs


Day 5: Design for Manufacturing (DFM) and Advanced Topics

- Introduction to DFM principles
- Understanding DFM checks
- Introduction to advanced topics such as parasitic extraction, signal integrity analysis, and layout optimization
- Hands-on practice: Running DFM checks and optimizing layout designs

Day 6: Customization and Automation and Project Work and Wrap-Up

- Introduction to Cadence Skill programming language
- Scripting and automation of Cadence tools
- Customizing tool configurations and user interfaces
- Hands-on practice: Writing basic scripts to automate common tasks
- Participants work on a project integrating all learned concepts
- Troubleshooting and assistance from instructors
- Presentation of project results
- Q&A session
- Course wrap-up and feedback collection

This syllabus provides a comprehensive overview of the Cadence tool suite and covers essential skills needed for circuit design, simulation, layout, physical verification, and automation. Adjustments can be made based on the specific needs and skill levels of the participants.


HOD ECE

HOD ECE

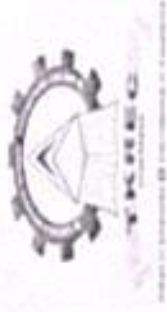
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Medbowli, Meerpet, Hyderabad





TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Meerpet, Hyderabad - 500097

Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **SAMULA RUPA** bearing roll number **16R91A04G0** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "CADENCE TOOL" organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING, Teegala Krishna Reddy Engineering College, Hyderabad, from 22-07-2019 to 27-07-2019**



HOD-ECE

(Dr. SK. UMAR FARUK)





PRINCIPAL-TKREC

(Dr.K. Venkata Praveen)

Teegala Krishna Reddy Engineering College
Meerpet, Hyderabad

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 03-09-2019

Syllabus of ARDUINO programming

Day 1: Introduction to ARDUINO

- Overview of Arduino: history, applications, and basic components
- Introduction to the Arduino IDE (Integrated Development Environment)
- Installing Arduino IDE and drivers
- Writing and uploading your first program (Blinking LED)

Day 2: Arduino Basics

- Understanding digital and analog pins
- Working with digital input/output (button, switch)
- Working with analog input (potentiometer)
- Serial communication with Arduino (Serial Monitor)

Day 3: Sensors and Actuators

- Introduction to various sensors (temperature, humidity, light, etc.)
- Interfacing sensors with Arduino
- Introduction to actuators (motors, servos)
- Controlling actuators with Arduino

Day 4: Intermediate Arduino Programming

- Conditional statements (if, else if, else)
- Loops (for, while)
- Functions and how to use them



W. S. Rao
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College Code: R9

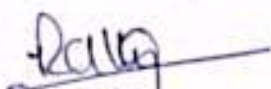
Day 5: Project Day

- Students work on a small project using the knowledge gained throughout the week
- Instructor provides guidance and assistance as needed
- Presentation of projects at the end of the day


Day 6: Advanced Topics and Final Project and Review

- Interrupts and timers
- Communication protocols (I2C, SPI)
- Using libraries to extend functionality
- Students work on a more complex project or extend their previous project
- Final project presentations and demonstrations
- Review of the week's topics and discussion of next steps for continued learning

Throughout the week, there will be hands-on exercises and projects to reinforce learning. Additionally, there will be opportunities for students to ask questions and seek clarification on any topics they find challenging.


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Meerpet, Hyderabad - 500097

Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **K AKASH** bearing roll number **16R91A0483** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "ARDUINO PROGRAMMING", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **09-09-2019** to **14-09-2019**

HOD-ECE

(Dr. SK. UMAR FARUK)



PRINCIPAL-TKREC

(Dr. K. Venkata Murthy Naidu)

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Principal-TKREC

Dr. K.V. Murali Mohan

Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

HEAD OF THE DEPARTMENT

Dr.SK.Umar Faruq

VISION

- To be a centre of learning in the field of Electronics and Communication Engineering to develop competent professionals for industry and to fulfill the needs of the society

MISSION

- To impart quality education through effective teaching learning process
- To provide essential inter-disciplinary technology to make the students readily employable
- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- PEO1: The graduates will be able to adopt emerging technology for career development
- PEO2: The graduates will be able to develop professional skills and sense of social responsibility that paves them a way to secure key position
- PEO3: The graduates will have the capability to analyses real life problems of the society and propose innovative solutions

1 Week Value Added Course on Embedded System Design for IOT Applications

20/01/2020 to 25-01-2020

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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date:13-01-2020

Syllabus on Embedded System Design for IOT Applications

Day 1: Introduction to Embedded Systems and IOT

- Overview of embedded systems and their applications in IoT.
- Introduction to IoT architecture and components.
- Key challenges and considerations in embedded system design for IoT applications.

Day 2: Microcontroller Basics

- Understanding microcontrollers and their role in embedded systems.
- Introduction to popular microcontroller architectures (e.g., ARM, AVR).
- Basics of programming microcontrollers using C/C++.

Day 3: Sensor Interfacing

- Introduction to sensors commonly used in IoT applications (e.g., temperature, humidity, motion).
- Understanding analog and digital sensor interfacing techniques.
- Hands-on exercises on interfacing sensors with microcontrollers.

Day 4: Communication Protocols

- Overview of communication protocols for IoT, including UART, SPI, I2C, and MQTT.
- Introduction to wireless communication protocols like Wi-Fi, Bluetooth, and LoRa.
- Practical session on implementing communication protocols for IoT devices.



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Day 5: Embedded Software Development

- Introduction to embedded software development tools (e.g., IDEs, compilers).
- Basics of real-time operating systems (RTOS) for embedded systems.
- Hands-on coding session to develop simple embedded software for IoT devices.

Day 6: IoT Applications and Case Studies and Project Showcase and Wrap-Up

- Exploring real-world IoT applications across various domains (e.g., smart home, healthcare, agriculture).
- Case studies highlighting successful IoT implementations and lessons learned.
- Group discussion on potential IoT applications and project ideas.
- Presentation of projects developed during the workshop.
- Peer feedback and discussion on project outcomes.
- Overview of further learning resources and career opportunities in embedded systems and IoT.

Throughout the week, participants should engage in hands-on activities, practical demonstrations, and collaborative projects to reinforce theoretical concepts and gain practical experience in embedded system design for IoT applications. Additionally, guest lectures or industry speakers can provide insights into the latest trends and innovations in the field.


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Department Of Electronics and Communication Engineering Certificate of Completion

This is to certify that **A MAHESHWARI** bearing roll number **17R91A0404** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "EMBEED SYSTEM DESIGN FOR IOT APPLICATIONS", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **20-01-2020** to **25-01-2020**

A handwritten signature in black ink, appearing to read 'S.K. Umar Faruk'.

HOD-ECE

(Dr. S.K. UMAR FARUK)



A handwritten signature in black ink, appearing to read 'K. Venkata Murali Mohan'.

PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)

Teegala Krishna Reddy Engineering College
Meerpet, Hyderabad

A small green logo with the word 'small' written in a cursive font.



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Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

HEAD OF THE DEPARTMENT

Dr.SK.Umar Faruq

VISION

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- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

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- PEO2: The graduate will be able to develop professional skills and sense of social responsibility that paves them a way to secure key position
- PEO3: The graduate will have the capability to analyses real life problems of the society and produce innovative solutions

1 Week Value Added Course on

PCB DESIGN AND FABRICATION

24/02/2020 to 29-02-2020

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Approved by AICTE, NBA & NAAC - A Grade.
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College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 17-02-2020

Syllabus of PCB design and fabrication

- 1. Schematic Design:** This is the initial stage where you create a schematic diagram of your circuit using specialized software like Altium Designer, Eagle, Ki Cad, or Or CAD. In this stage, you define the components, their connections, and how they interact with each other.
- 2. PCB Layout Design:** Once the schematic is complete, you move on to designing the physical layout of the PCB. This involves placing the components on the board and routing the traces (connections) between them. The goal is to minimize signal interference, optimize signal integrity, and ensure proper functionality.
- 3. Design Rule Check (DRC):** After completing the layout, the design undergoes a DRC to ensure it meets the specified design rules, such as trace width, clearance, and minimum drill size. This helps to identify and correct any potential manufacturing issues before fabrication.
- 4. Gerber File Generation:** Once the design is finalized, Gerber files are generated. These files contain all the necessary information for the fabrication process, including copper layers, solder mask, silkscreen, and drill files.
- 5. Fabrication:** The Gerber files are sent to a PCB fabrication facility. The fabrication process typically involves several steps, including laminating a copper layer onto a substrate, etching away excess copper to form the traces, drilling holes for through-hole components, and applying solder mask and silkscreen.
- 6. Assembly:** After the PCBs are fabricated, they undergo assembly, where the components are placed and soldered onto the board. This can be done manually or using automated assembly equipment, depending on the complexity and volume of the PCBs.



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College Code: R9

7. **Testing:** Once assembled, the PCBs are tested to ensure they function correctly. This may involve functional testing, electrical testing, and sometimes environmental testing to ensure reliability under various conditions.
8. **Final Inspection and Packaging:** After testing, the PCBs undergo final inspection to check for any defects or issues. Once approved, they are packaged and prepared for shipment to the customer or assembly into larger systems.

Throughout this entire process, attention to detail and adherence to best practices are essential to ensure the final product meets the desired specifications and quality standards. Additionally, collaboration between design engineers, fabricators, and assemblers is crucial to optimize the design for manufacturability and ensure a smooth transition from design to production.


-HOD/ECE

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Medbowli, Meerpet, Hyderabad





TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Meerpet, Hyderabad - 500097

Department Of Electronics and Communication Engineering

Certificate of Completion

This is to certify that **KOLANU ABHINAY REDDY** bearing roll number **16R91A04E0 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**PCB DESIGN AND FABRICATION**", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **17-02-2020** to **24-02-2020**

Umar

HOD-ECE

(Dr. SK. UMAR FARUK)



K. Venkata

PRINCIPAL-TKREC
PRINCIPAL

(Dr. K. Venkata Krishna Reddy Engineering College)
Meerpet, Hyderabad

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Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

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Convener:

Dr. CH.V. Phani Krishna
Prof & HOD of CSE

Coordinators:

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Assistant Professor, CSE, TKREC

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Assistant Professor, CSE, TKREC

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Assoc. Prof & Head of AI&ML, TKREC

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Assoc. Prof & Head CSD, TKREC

Dr. K. Bhargavi

Assoc. Professor, CSE, TKREC

About TKREC:

TKR Engineering College – a modern temple of learning, an Off shoot of the TKR Educational Society was established in the year 2005 in a sprawling, lush green 20 acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

Department of CSE was Established in the year 2005, and Offers B.Tech degree in CSE with an intake of 240, MTech in CSE with an intake of 24. It has Sophisticated infrastructural, state-of-art labs and experienced faculty. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programmes, industrial tours and visits, etc. In view of all these academic activities, the department has been accredited by NBA.

VISION

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological society.



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A Value-added Course On

Pedagogical Studies

19-02-2020
Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
(Approved by AICTE, accredited by NBA & NAAC - 'A',
Affiliated to JNTUH, Hyderabad, Telangana)

Resource Persons: MR.DR.K. SRINIVAS

Professor CSE



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College Code: R9

Syllabus of Value-added Course on Pedagogical Studies

Day 1: Introduction to Pedagogy

- 1) Definition of pedagogy
- 2) Historical perspectives on teaching and learning
- 3) Overview of educational psychology

Day 2: Learning Theories

- 1) Behaviourism, cognitivism, and constructivism
- 2) Social learning theory
- 3) Application of learning theories in teaching practice

Day 3: Pedagogical Approaches

- 1) Direct instruction vs. inquiry-based learning
- 2) Experiential learning
- 3) Differentiated instruction

Day 4 : Instructional Design

- 1) Backward design model
- 2) Writing learning objectives
- 3) Designing effective lesson plans and activities

Day 5 : Student Engagement and Motivation

- 1) Factors influencing student motivation
- 2) Strategies for engaging students in learning
- 3) Culturally responsive teaching practices

Day 6 : Assessment and Evaluation

- 1) Formative vs. summative assessment
- 2) Authentic assessment methods
- 3) Providing effective feedback to students

Day 7: Classroom Management

- 1) Establishing classroom rules and routines

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College Code: R9

- 2) Managing student behavior and conflicts
- 3) Creating a positive and inclusive learning environment

Day 8: Technology Integration

- 1) Using technology to enhance teaching and learning
- 2) Digital citizenship and online safety
- 3) Blended learning models.

C.M.

HOD-CSE

Dr. C.M. PRASAD KRISHNA,
Head of the Department,
Computer Science and Engineering,
Teegala Krishna Reddy Engineering College,
Medbowli, Meerpet, Hyderabad - 97.



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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that RACHAMADUG U ARAVINDA KUMAR bearing roll number 16R91A0549 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "Pedagogical Studies", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 19-02-2020 to 27-2-2020.

CH

HOD-CSE

(Dr.CH. V. Phani krishna)



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(Dr.K. Venkata Murali Mohan)

OUR STRENGTHH

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Secretary, TKRES
Sri. Teegala Anantaram Reddy
Treasurer, TKRES

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Vice-Principal & Dean:

Dr. K. S.V. Meenakshi Reddy

Convener:

Dr. CHA. Pravin Krishna
Prof & HOD of CSE

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Assoe Prof & Head of AIML, TKREC
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VISION

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A Value-added Course

On

English for Research Paper Writing

09-12-2019

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Department of CSE

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Resource Persons: MRS.K. SUDHA RANI

Professor CSE



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College Code: R9

Syllabus of Value-added Course on ENGLISH FOR RESEARCH PAPER WRITING

DAY 1: Introduction to Academic Writing

- 1) Understanding the characteristics of academic writing
- 2) Differentiating between various types of research papers (e.g., analytical, argumentative, literature review)
- 3) Overview of the research paper writing process

DAY 2: Grammar and Sentence Structure

- 1) Review of basic grammar rules
- 2) Sentence structure and coherence
- 3) Avoiding common grammatical errors in academic writing

DAY 3: Vocabulary and Academic Style

- 1) Academic vocabulary building
- 2) Formal vs. informal language
- 3) Developing an academic writing style

DAY 4: Reading Comprehension Strategies

- 1) Strategies for effective reading of academic texts
- 2) Identifying main ideas, arguments, and supporting evidence
- 3) Note-taking techniques for research papers

DAY 5: Citation and Referencing

- 1) Understanding the importance of citation and referencing
- 2) Overview of citation styles (e.g., APA, MLA)
- 3) Practice in citing sources and creating reference lists

DAY 6: Structuring a Research Paper

- 1) Introduction, literature review, methodology, results, discussion, conclusion
- 2) Organizing ideas and creating an outline
- 3) Writing effective introductions and conclusions

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College Code: R9

DAY 7: Revision and Editing

- 1) Strategies for revising and editing academic writing
- 2) Peer review and feedback
- 3) Proofreading techniques

Gopi
HOD-CSE

Dr. Chaitanya Krishna Reddy
Head of the Department
Computer Science and Engineering
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Hyderabad - 97.



[Signature]
PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that KODURI SREEJA bearing roll number 19R91A0527 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "English for Research Paper Writing", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 09-12-2019 to 16-12-2019.

C.S.E

HOD-CSE

(Dr.Ch. V. Phani Krishna)



K. Surendra
PRINCIPAL
Teegala Krishna Reddy Engineering College
(USA-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad
Vengalata Murali Mohan

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-Autonomous)

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College Code: R9

DATE: 31-08-2019

Syllabus of Career Development:

Self-Assessment and Goal Setting

1. Understanding personal strengths, interests, values, and skills
2. Setting SMART (Specific, Measurable, Achievable, Relevant, Time-bound) career goals
3. Identifying short-term and long-term career objectives
4. Workshop: Self-assessment exercises and goal-setting activities

Resume Writing and Cover Letter Preparation

1. Overview of resume formats, styles, and content
2. Writing impactful resume summaries, work experience, and education sections
3. Crafting tailored cover letters for job applications
4. Workshop: Resume writing and cover letter drafting sessions

Job Search Strategies and Online Presence

1. Exploring different job search channels: job boards, company websites, networking
2. Building a professional online presence: LinkedIn profiles, personal branding
3. Leveraging social media for job search and professional networking
4. Workshop: Optimizing LinkedIn profiles and networking strategies

Interview Preparation and Techniques

1. Understanding different types of interviews: behavioral, technical, case interviews
2. Preparing for common interview questions and practicing responses
3. Techniques for showcasing skills, experiences, and accomplishments effectively
4. Workshop: Mock interview sessions and peer feedback

Networking and Professional Development

1. Importance of networking for career growth and opportunities
2. Building and nurturing professional relationships: informational interviews, networking events
3. Strategies for expanding professional networks and maintaining connections
4. Workshop: Networking exercises and role-playing scenarios

Career Path Exploration and Goal Refinement

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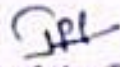


College Code: R9

1. Exploring different career paths and industries relevant to BTech students
2. Assessing career opportunities, trends, and market demands
3. Refining career goals based on self-assessment, feedback, and research
4. Workshop: Career path exploration activities and goal refinement exercises

Personal Branding and Action Planning

1. Developing a personal brand statement and elevator pitch
2. Creating action plans for achieving career goals and milestones
3. Identifying resources, support systems, and next steps for career development
4. Workshop: Personal branding exercises and action planning sessions


Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **RIDDHI DESHMUKH** bearing roll number **16R91A1235** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Career Development**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **02-09-2019** to **07-09-2019**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)



**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

Autonomous
Approved by AICTE, New Delhi & Affiliated to JNTU, Hyderabad
Established in the year 2002

**One week workshop
on
Java Programming**

Objective

To build foundational skills, enhance coding proficiency, and understand core concepts, enabling students to develop robust applications and prepare for advanced Java-related coursework and career opportunities.

Date: 27-01-2020 to 02-02-2020

**Organised By
Department of IT**

TKR Engineering College – a modern temple of learning, an Offshoot of the TKR Educational Society was established in the year 2002 in a sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on their faces and emerge victorious.

About Department:

VISION

The program aims at creating capable engineering professionals to meet the flourishing needs of the Industry and society in the field of Information Technology.

MISSION

Impart adequate employability skills to make the students industry ready with global standards.
Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

Wrote

OUR STRENGTH

Chief Patron:

Hon Mr. Teegala Krishna Reddy

Chairman, TKRES

Patron:

Dr. Teegala Harinath Reddy

Secretary, TKRES

Co-Patron:

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice Principal & Dean of Academics:

Dr. K.M.V. Madan Kumar

Convener:

Dr. J. Praveen Kumar

HOD of IT

Coordinators:

Mrs. G. Archana

Assistant Professor, TKREC

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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College Code: R9

Date: 25-01-2020

Syllabus of Java Programming:

Introduction to Java Programming

1. Overview of Java programming language history, features, and applications
2. Setting up the Java development environment (JDK, IDE)
3. Writing and running your first Java program
4. Hands-on session: Setting up the development environment and writing basic Java programs

Java Basics: Syntax and Data Types

1. Java syntax rules: identifiers, keywords, comments, and statements
2. Primitive data types, variables, and literals in Java
3. Understanding operators and expressions in Java
4. Hands-on session: Practicing Java syntax and working with different data types

Control Flow Statements

1. Conditional statements: if, if-else, nested if-else, switch-case
2. Looping statements: for, while, do-while
3. Using break and continue statements
4. Hands-on session: Implementing control flow statements in Java programs

Object-Oriented Programming (OOP) Concepts

1. Understanding object-oriented programming principles: encapsulation, inheritance, polymorphism, abstraction
2. Declaring classes and objects in Java
3. Defining class methods and constructors
4. Hands-on session: Creating and using classes and objects in Java programs

Inheritance and Polymorphism

1. Implementing inheritance and method overriding in Java
2. Understanding super and this keywords
3. Polymorphism and method overloading in Java
4. Hands-on session: Implementing inheritance and polymorphism in Java programs

Exception Handling and File I/O

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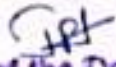


College Code: R9

1. Handling exceptions using try-catch blocks
2. Throwing and catching exceptions in Java
3. Introduction to file handling: reading from and writing to files in Java
4. Hands-on session: Implementing exception handling and file I/O operations in Java programs

Project Work and Presentation

1. Participants work on a Java programming project of their choice, applying the concepts and skills learned throughout the course
2. Project presentations: Participants showcase their projects, discussing their methodologies, results, and insights
3. Course conclusion: Recap of key learnings, feedback collection, and certificate distribution


Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Department of Information Technology

Certificate of Completion

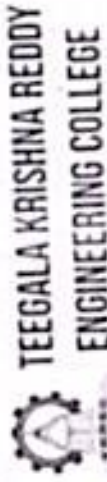
This is to certify that **BURRA PUJITHA** bearing roll number **18R91A1210** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Java Programming**", organized by Department of **Information Technology**. Teegala Krishna Reddy Engineering College, Hyderabad, from **27-01-2020** to **02-01-2020**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)
Approved by AICTE, New Delhi, UPEP, Hyderabad, A.P.
Autonomous Institute, Government of Andhra Pradesh

One week Workshop ON Visualisation Tools

Objective

To teach effective data representation,
enhance analytical skills, and familiarize
students with industry standard tools,
enabling them to create insightful,
interactive, and impactful visualizations
for various applications.

Date: 24-03-2020 to 29-03-2020

Organising by
Department of IT



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About Department

VISION

The program aims at creating capable engineering professionals to meet the flourishing needs of the industry and society in the field of Information Technology.

MISSION

Impart adequate employability skills to make the students industry ready with global standards
Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

OUR STRENGTH

Chief Patron:

Hon. Mr. Teegala Krishna Reddy
Chairman, TKRES

Patron:

Dr. Teegala Harinath Reddy

Secretary, TKRES

Co Patron:

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean of Academics:

Dr. K. M. V. Madan Kumar

Convener:

Dr. J. Praveen Kumar

HOD of IT

Coordinators:

Mrs. E. Aruna

Assistant Professor, TKREC

Wine

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College Code: R9

Date: 22-03-2020

Syllabus of Visualization tools:

Introduction to Data Visualization

1. Overview of data visualization concepts, importance, and applications
2. Understanding the role of visualization in data analysis and decision-making
3. Introduction to key visualization principles: encoding, perception, and design
4. Hands-on session: Exploring basic visualization techniques using pen and paper

Introduction to Visualization Tools

1. Overview of popular data visualization tools: Tableau, Power BI, Google Data Studio, etc.
2. Understanding the features, capabilities, and limitations of different visualization tools
3. Setting up and navigating through a chosen visualization tool
4. Hands-on session: Getting started with a selected visualization tool and creating simple visualizations

Data Exploration and Preprocessing

1. Understanding data types, formats, and structures
2. Exploratory data analysis (EDA) techniques for understanding data distributions and patterns
3. Data preprocessing steps: cleaning, transforming, and aggregating data
4. Hands-on session: Exploring and preprocessing sample datasets using visualization tools

Advanced Visualization Techniques

1. Advanced visualization techniques: interactive dashboards, geographic mapping, time-series analysis
2. Creating complex visualizations using advanced features and functionalities
3. Best practices for designing effective and engaging visualizations
4. Hands-on session: Building interactive dashboards and advanced visualizations

Storytelling with Data

1. Understanding the importance of storytelling in data visualization
2. Techniques for crafting compelling narratives with data

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College Code: R9

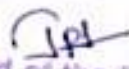
3. Designing effective visual narratives: structure, flow, and emphasis
4. Hands-on session: Creating data-driven stories and presentations using visualization tools

Data Visualization for Decision-Making

1. Role of visualization in decision-making processes
2. Communicating insights and findings effectively through visualizations
3. Using visualizations to support data-driven decision-making
4. Hands-on session: Creating visualizations to support hypothetical decision-making scenarios

Project Work and Presentation

1. Participants work on a data visualization project of their choice, applying the concepts and skills learned throughout the course
2. Project presentations: Participants showcase their projects, discussing their methodologies, results, and insights
3. Course conclusion: Recap of key learnings, feedback collection, and certificate distribution


Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Information Technology

Certificate of Completion

This is to certify that **JAVERIYA NAAZ** bearing roll number **16R91A1216** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Visualization Tools**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **24-03-2020** to **29-03-2020**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

OUR STRENGTHH

Chief Patron

Hon Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

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Secretary, TKRES

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K. M. V. Madan Kumar

Convenor:

Mr. V. Surya Narayana

Prof & HOD of MBA

Coordinator:

Mr. D. Srisailam

Assistant Professor, MBA, TKREC

About TKREC:

TKR Engineering College – a modern temple of learning, an offshoot of the TKR Educational Society was established in the year 2002 in a sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

TKREC MBA was established in the year 2007 with the approval of AICTE, New Delhi offers two year full-time MBA Programme, which is affiliated to Jawaharlal Nehru Technological University, Hyderabad with an intake of 60 in Management. The institute has carved a niche for itself, within a short period of time, among a host of management institutions. To accomplish the mission of Indian in values & International in excellence, with excellent infrastructure and competent faculty, TKREC MBA is imparting quality management education. The prime focus is on application of knowledge, development of positive attitude, diverse skills and competencies among the students. Pedagogy includes lectures, case discussions, Role-plays and simulation..

VISION:

Striving for an outstanding value based quality education, developing entrepreneurial skills to become global managers and continue to hold passion for knowledge-sharing in all facets of management education, embedding Indian culture and societal values.

A Value-Added Course

On

Public Speaking

(01-10-2019 to 5-10-2019)

Organized by

MR.V.Surya Narayana



Department of MBA

TEEGALA KRISHNA REDDY

ENGINEERING COLLEGE

**(Approved by AICTE, accredited by NBA
& NAAC – 'A', Affiliated to JNTUH,**

Hyderabad, Telangana)

Resource Person: Mr. S. D. Pohare



M. S. S. S.
PRINCIPAL

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(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 97.



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College Code: KR

Syllabus of Value-added Course on Public Speaking

Day 1: Introduction to Public Speaking

1. Define public speaking, professional contexts
2. Identify common challenges and apprehensions associated with public speaking,
3. Introduce fundamental principles of effective communication

Day 2: Speech Preparation and Planning

1. Discuss the importance of audience analysis in speech preparation,
2. Explore strategies for selecting and narrowing speech topics
3. Introduce techniques for organizing and structuring speeches

Day 3: Verbal and Nonverbal Communication

1. Analyze the impact of verbal and nonverbal cues on audience perception
2. Discuss techniques for improving vocal delivery,
3. Explore the role of body language and gestures in effective communication

Day 4: Persuasive Speaking

1. Define persuasion and its role in public speaking
2. Introduce persuasive strategies
3. Analyze persuasive speeches and techniques used by effective speakers.

Day 5: Ethical Considerations in Public Speaking

1. Discuss ethical responsibilities and obligations of speakers
2. Explore issues related to truthfulness, integrity, and respect for audience members,
3. Analyze ethical dilemmas in public speaking and propose solutions.

HOD - MBA
Teegala Krishna Reddy Engg. College
S. Medbowli, Meerpet,
Saroonagar, Hyderabad - 500079. A.P.

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Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Meerpet, Hyderabad - 500097

Department of MBA

Certificate of Completion

This is to certify that **J.RENUKA** bearing roll number **18R91E0009** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**PUBLIC SPEAKING**", organized by Department MBA Teegala Krishna Reddy Engineering College, Hyderabad, from **01-10-2019 to 05-10-2019**.

HOD-MBA

(Mr.V.Surya Narayana)



PRINCIPAL
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(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

PRINCIPAL-TKREC

(Dr.K.Venkata Murali Mohan)

OUR STRENGTH

Chief Patron

Hon. Mr. Teegala Krishna Reddy
Chairman, TKRES

Patrons:

Dr. Teegala Harinath Reddy
Secretary, TKRES
Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K.V. Murali Mohan

Vice-Principal & Dean:

Dr. K.M.V. Madan Kumar

Convener:

Mr. MD. Muncerruddin Khan
Assistant Professor & HOD of CE

Coordinator:

Mr. N. Chandra Gupta
Assistant Professor, CE, TKREC

About TKREC:

TKR Engineering College - a modern temple of learning, an offshoot of the TKR Educational Society was established in the year 2002 in a sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

The department was established in the year of 2009 with an intake of 60 students now its 120. The Department offers a four-year UG course leading to B.Tech in Civil Engineering. The department has energetic and experienced faculty (Industrial & Teaching) for the benefit of the students and to promote R&D. The department has conducted National Conferences, Workshops, Seminars, Guest lecture, Industrial & Field Visits, etc to update the Technical knowledge of students. The department has fully equipped laboratories and all infrastructures to meet the academic requirements.

VISION:

To impart technical knowledge in the field of civil engineering and expose the graduate students to the technology.

A Value-Added Course
On Quantitative Aptitude
(18-03-2019 to 22-03-2019)

Organized by
Mr. MD. Muncerruddin Khan



Department of CIVIL

**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

(Approved by AICTE, accredited by NBA
& NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)

Resource Person: P.Hathiram



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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC)

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TKREC
Established in 1983



College Code: R9

Syllabus of Value-added Course on Quantitative Aptitude

Day 1. Fundamental Mathematics Skills:

- Arithmetic operations (addition, subtraction, multiplication, division)
- Fractions, decimals, and percentages
- Exponents and roots
- Order of operations (PEMDAS/BODMAS)

Day 2. Algebra:

- Basic algebraic expressions and equations
- Solving linear equations and inequalities
- Quadratic equations and their solutions
- Polynomials and factoring

Day 3. Geometry:

- Basic geometric shapes (lines, angles, triangles, circles, polygons)
- Perimeter, area, and volume calculations
- Properties of triangles, quadrilaterals, and circles
- Coordinate geometry: Distance, midpoint, slope of a line

Day 4. Data Interpretation:

- Tabular data interpretation
- Pie charts, bar graphs, and line graphs interpretation
- Data analysis and drawing conclusions from graphical representations

Day 5. Number Theory:

- Prime numbers, factors, and multiples
- Divisibility rules
- LCM (Least Common Multiple) and GCD (Greatest Common Divisor)
- Number patterns and sequences

UK



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Medbowli, Meerpet, Hyderabad - 97.



TEEGALAKRISHNAREDDYENGINEERINGCOLLEGE

(UGC)

Meerpet, Hyderabad - 500097

Department of Civil Engineering

Certificate of Completion

This is to certify that **ALUVALA KARTHIK** bearing roll number **17R91A0101** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "Quantitative", organized by Department of Civil Engineering, Teegala Krishna Reddy Engineering College, Hyderabad from **18th - 22th March, 2019**.



HOD-CE

(**MD. MUNEERUDDINKHAN**)

PRINCIPAL
Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad - 97.

PRINCIPAL-TKREC
(**Dr. K. Venkata Murali Mohan**)



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Sponsored by TKR Educational Society, Approved by
AICTE, Affiliated by JNTUH, Accredited by NBA &
SAAC

Medowli, Meerpet, Saroornagar, Hyderabad-500017
Phone: 041-24092538 Fax: +91-040-24092555
Email: tkrec@rediffmail.com Website: www.tkrec.ac.in

About the Institution:

Teegala Krishna Reddy Engineering College (TKREC) was founded in the year 2005 by TKR Educational Society established in 2001 under the dynamic leadership of Sri. Teegala Krishna Reddy, M.L.A. with prime motto of educating people with strong basic knowledge. Teegala Krishna Reddy Engineering College (TKREC) was established with a vision of imparting knowledge and instilling skills to the aspiring students in the fields of Engineering, Technology, Science and Management to face the emerging challenges of the society. The college offers diploma courses in EEE, ICE, CME, CE and UG courses in CEEE, ECE, CSE, IT and PG courses in M.TECH and M.B.A.

About the Department:

The Department of Electrical and Electronics Engineering was started in 2005, with intake of 60. A vision of striving to provide quality education and train students in the contemporary technologies, to meet the needs and demands of global industry shaping them into skillful engineers imbued with professional ethics. The department is run by well qualified and experienced faculty committed to train students realizing the importance of latest



ENVIRONMENTAL SCIENCE

VALUE ADDED COURSE

OF

ENVIRONMENTAL SCIENCE & TECHNOLOGY

From 27th AUGUST to 31st AUGUST, 2018

About the course:

Environmental Science combines physical, biological and chemical sciences to study the environment and discover solutions to environmental problems such as climate change, pollution, and loss of biodiversity and the sustainable production of food, energy and clean water.



Organizing Committee:
Chief Patron: Sri. Teegala Krishna Reddy,
CHAIRMAN, TKRES,
Patrons: Dr. T. Harinath Reddy,
SECRETARY, TKRES,
Sri. Amarnath Reddy,
TREASURER, TKRES,
Dr. S. R. Jagan Srinani
DIRECTOR, TKRES.

Chairman: Dr. P. Ram Mohan Rao
PRINCIPAL, TKREC.

Advisory

Committee: K. Sundar Rajan,
PROF. & emp. DEAN (R&D)
A.V. Prathap Kumar

Venue & Duration:

Auditorium: R9

Timing: 10:00 am to 3:00 pm

For further information contact:

Coordinator

Mr. B. Ramesh,

Asst. Prof. EEE Dept.,

T206706616.

T.MADHU BABU,

Head of the Department - EEE, TKREC

Ph No: +91-0116479449

E-Mail: eeedpt@tkrec.ac.in

Web: www.tkrec.ac.in

VERBODIGIPAL
Teegala Krishna Reddy Engineering College
(AUTONOMOUS)
Hyderabad - 9T.

Medowli, Meerpet, Saroornagar, Hyderabad-500017



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE (UGC)

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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097
Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in
Department of Electrical and Electronics Engineering



College Code: R9

Syllabus of Value-added Course on Environmental science and technology

chapter - I

Ecosystems: Definition, Scope, and Importance of ecosystem. Classification, structure, and function of an ecosystem, Food chains, food webs, and ecological pyramids. Flow of energy, Bio geochemical cycles, Bioaccumulation, Bio magnification, ecosystem value, services and carrying capacity, Field visits.

Natural Resources: Classification of Resources: Living and Non-Living resources, water resources: use and over utilization of surface and ground water, floods and droughts, Dams: benefits and problems. Mineral resources: use and exploitation, environmental effects of extracting and using mineral resources, Land resources: Forest resources, Energy resources: growing energy needs renewable and non-renewable energy sources, use of alternate energy source, case studies.

chapter - II

Biodiversity and Biotic Resources: Introduction, Definition, genetic, species and ecosystem diversity. Value of biodiversity; consumptive use, productive use, social, ethical, aesthetic and optional values. India as a mega diversity nation, Hot spots of biodiversity. Field visit. Threats to biodiversity: habitat loss, poaching of wildlife, man-wildlife conflicts; conservation of biodiversity: In-Situ and Ex-situ conservation. National Biodiversity act.

chapter - III

Environmental Pollution and Control Technologies: Environmental Pollution: Classification of pollution, Air Pollution: Primary and secondary pollutants, Automobile and Industrial pollution, Ambient air quality standards. Water pollution: Sources and types of pollution, drinking water quality standards. Soil Pollution: Sources and types, Impacts of modern agriculture, degradation of soil. Noise Pollution: Sources and Health hazards, standards, Solid waste: Municipal Solid Waste management, composition and characteristics of e-Waste and its management. Pollution control technologies.

HOD
Electrical and Electronics Engineering
T K R Engineering College
Meerpet, Hyderabad-500 079

PRINCIPAL

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Medbowli, Meerpet, Hyderabad - 97.



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering

Certificate of Completion

*This is to certify that **M SAIKUMAR GOUD** bearing with roll number **15R91A0226** of Teegala Krishna Reddy Engineering College has been completed the course on **“ENVIRONMENTAL SCIENCE & TECHNOLOGY”**, organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 27th August to 31st August 2018.*

HOD-EEE
(T. Madhu Babu)



PRINCIPAL
PRINCIPAL-TKREC
(Dr. K. Venkata Murali Mohan)

Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS)
Meerpet, Hyderabad-97



TEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Medbowli, Meerpet, Saroornagar, Hyderabad-500097
Phone: 040-24092838 Fax: +91-040-24092555
Email: tkrec@rediffmail.com Website: www.tkrec.ac.in

About the Institution:

Tegala Krishna Reddy Engineering College (TKREC) was founded in the year 2005 by the TKR Educational Society established in 2001 under the dynamic leadership of Sri. Tegala Krishna Reddy, M.A., with prime motto of educating people with strong basic knowledge. Tegala Krishna Reddy Engineering College (TKREC) was established with a vision of imparting knowledge and instilling skills to aspiring students in the fields of Engineering, Technology, Science, and Management to face the emerging challenges of society. The college offers diploma courses in EEE, ECE, CME, CE, and UG courses in CE, EEE, ECE, CSE, IT, and PG courses in M.TECH and M.B.A.

About the Department:

The Department of Electrical and Electronics Engineering was started in 2005, with an intake of 60. A vision of striving to provide quality education and train students in contemporary technologies, to meet the needs and demands of global industry shaping them into skillful engineers imbued with professional ethics. The department is run by well-qualified and experienced faculty committed to training students to realize the importance of the latest



The Gender Sensitization

VALUE ADDED COURSE

On

Gender Sensitization

from 11th February to 16th February 2019.

About the course:

Gender sensitization is the process teaching of gender sensitivity and encouragement of behavior modification through raising awareness of gender equality concerns. In other words, it is the process of making people aware of gender equality or the lack of it to the need to eliminate gender

Organizing Committee:
Chief Patron: Sri. Tegala Krishna Reddy,
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Patrons: Dr. T.Harimath Reddy,
SECRETARY, TKRES,
Sri. Amaramath Reddy,
TREASURER, TKRES,
Dr. S.R.Rama Swamy
DIRECTOR, TKRES.
Chairman: Dr. P.Ram Mohan Ram
PRINCIPAL, TKREC.

Advisory
Committee: K.Sundara Rajan,
PROF. &amp; DEAN (R&amp;D)
A.V.Prathap Kumar

Venue & Duration:
Auditorium: R9
Timing: 10.00 am to .00 pm
For further information contact:
Coordinator

Mr. B.Ramesh,
Asst. Prof. EEE Dept.,
7386706616,
T.MADHU BABU,
Head of the Department - EEE, TKREC
Ph No: 91-8116-476459
E-Mail: eee@tkrec@gmail.com
Web: www.tkrec.ac.in



W.BRUGUJAL
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Department of Electrical and Electronics Engineering



College Code: R9

Syllabus of Value-added Course on Gender Sensitization

1. Understanding Gender and Related Concepts

- Gender: Sex vs. Gender, Social construction of Gender, Gender Roles, Gender Stereotypes, Gender division of Labour
- Patriarchy
- House Work
- Gender Based Violence
- Sexualities
- Inter Sectionally
- Gender, Caste & Class

2. Gender Sensitization

- Gender Sensitization: Meaning, Nature & importance
- Challenges before Gender Sensitization
- practices for Gender Sensitization

3. Towards Equality: Convention & Declaration

- Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW)
- Declaration on the Elimination of Violence Against Women (DEVAW)

4. Towards Equality: Constitutional Provisions and Acts

- Gender Equality: Constitutional Provisions
- Protection of Women from Domestic Violence Act, 2005
- Protection of Children from Sexual Offences Act, 2012
- Sexual Harassment of Women at Workplace (Prevention)
- Prohibition and Redressal Act, 2013

Princip
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T.R.
HOD
Department of Electrical and Electronics Engineering
TKR Engineering College
Meerpet, Hyderabad-500 079



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department of Electrical & Electronics Engineering

Certificate of Completion

This is to certify that **AVULA SRIKANTH** bearing with roll number **15R91A0203** of Teegala Krishna Reddy Engineering College has been completed the course on "**GENDER SENSITIZATION**", organized by the Department of Electrical and Electronics Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 11th February to 16th February 2019.

HOD-EEE
(T. Madhu Babu)



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Teegala Krishna Reddy Engineering College
(UGC-AUTONOMOUS) (Dr. K. Venkata Murali Mohan)
Meerpet, Hyderabad - 500097



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Sri Teegala Krishna Reddy

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TKR Educational Society

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Sri. T. Amarnath Reddy

Treasurer
TKR Educational Society

Principal-TKREC

Dr. J.B.V Subrahmanyam

Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

VISION

- To be a centre of learning in the field of Electronics and Communication Engineering to develop competent professionals for industry and to fulfill the needs of the society

MISSION

- To impart quality education through effective teaching learning process
- To provide essential inter-disciplinary technology to make the students readily employable
- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

PROGRAM EDUCATIONAL OBJECTIVES (PEOs)

- PEO1: The graduates will be able to adopt emerging technology for career development
- PEO2: The graduates will be able to develop professional skills and sense of social responsibility that paves them a way to secure key position
- PEO3: The graduates will have the capability to analyse real life problems of the society and produce innovative solutions

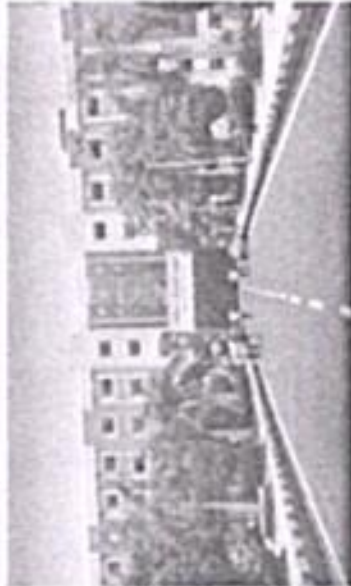
1 Week Value Added Course on
**HANDS ON PROGRAM ON
MATLAB**

16/07/2018 to 20-07-2018

**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

Affiliated to JNTUH

Medbowli, Meerpet, Saroornagar, Rangia Reddy
Dist Hyderabad, Telangana State-500097



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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in

College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 10-07-2018

Syllabus of hands on program on MATLAB

Day 1: Introduction to MATLAB

- Overview of MATLAB environment and basic functionalities
- Introduction to MATLAB syntax and programming concepts
- Hands-on exercises: Basic arithmetic operations, variables, and data types

Day 2: Data Manipulation and Visualization

- Importing and exporting data in MATLAB
- Data manipulation techniques: indexing, slicing, and filtering
- Introduction to plotting and visualization tools in MATLAB
- Hands-on exercises: Creating plots, customizing plots, and visualizing data

Day 3: MATLAB Programming Fundamentals

- Control flow statements: if-else, for, while loops
- Writing functions and scripts in MATLAB
- Debugging techniques and best practices
- Hands-on exercises: Implementing algorithms, solving problems using MATLAB scripts and functions

Day 5: Applications and Case Studies

- Application of MATLAB in various fields (e.g., engineering, finance, biology)
- Real-world case studies and examples
- Tips for efficient MATLAB usage and best practices





TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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College Code: R9

- Final project: Participants work on a small project applying MATLAB skills learned throughout the week

Day 6: Project Work and Consultation and Project Presentations and Wrap-Up

- Participants work on their final projects with guidance from instructors
- One-on-one consultations with instructors for project assistance and feedback
- Final project presentations by participants
- Feedback and discussions on projects
- Recap of key concepts and learning points
- Certificate distribution and closing remarks

HOD/ECE

HOD ECE

Teegala Krishna Reddy Engineering College
Medbowli Meerpet Hyderabad-97

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Medbowli, Meerpet, Hyderabad





TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(UGC-AUTONOMOUS)

Meerpet, Hyderabad - 500097

Department Of Electronics and Communication Engineering Certificate of Completion

This is to certify that **KASOJU GAYATHRI CHARY** bearing roll number **15R91A0488 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**HANDS ON PROGRAM ON MATLAB**", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **16-07-2018** to **21-07-2018**


HOD-ECE

(Dr. S NAGI REDDY)


Teegala Krishna Reddy Engineering College
Medbowli Meerpet Hyderabad-97





PRINCIPAL-TKREC

(Dr. J.V.B. SUBRAMANYAM)
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Treasurer
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Dr. J.B.V Subrahmanyam

Vice-Principal & Dean-TKREC

Dr. K.M.V Madan Kumar

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MISSION

- To impart quality education through effective teaching learning process
- To provide essential inter-disciplinary technology to make the students readily employable
- To inculcate entrepreneurial skills to provide socially relevant and sustainable solutions

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- PEO2: The graduate will be able to develop professional skills and sense of social responsibility that paves them a way to secure key position
- PEO3: The graduate will have the capability to analyses real life problems of the society and produce innovative solutions

1 Week Value Added Course on

PYTHON PROGRAMMING

14/01/2019 to 19-01-2019

**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

Affiliated to JNTUH

Medbowli, Meerpet, Saroornagar, Rangia Reddy
Dist: Hyderabad, Telangana State-500097



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Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in

College Code: R9

DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

Date: 07-01-2019

Syllabus of Python programming

Course Outline:

Day 1: Introduction to Python

- Overview of Python: history, features, and applications
- Setting up Python environment (using Anaconda, Jupyter Notebook, or similar)
- Basic syntax: variables, data types, and operators
- Writing and executing your first Python program

Day 2: Control Flow and Functions

- Conditional statements: if, elif, else
- Looping structures: for and while loops
- Introduction to functions: defining and calling functions
- Practice exercises to reinforce concepts

Day 3: Data Structures in Python

- Lists: creation, indexing, slicing, and methods
- Tuples: creation, accessing elements, and immutability
- Dictionaries: key-value pairs, accessing, and modifying elements
- Sets: creation, methods, and operations
- Hands-on exercises to work with data structures





TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

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College Code: R9

Day 4: File Handling and Modules

- Reading and writing files in Python
- Introduction to modules and libraries
- Importing modules and using functions from them
- Overview of commonly used Python libraries (e.g., NumPy, Pandas)

Day 5: Object-Oriented Programming (OOP) in Python

- Understanding OOP concepts: classes, objects, inheritance, polymorphism, and encapsulation
- Creating classes and objects in Python
- Implementing inheritance and polymorphism in Python
- Practical examples and exercises to solidify OOP concepts

Day 6: Error Handling and Debugging and Mini Project and Conclusion

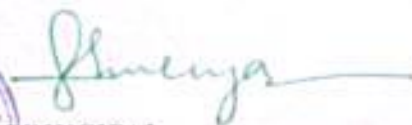
- Understanding exceptions and errors in Python
- Using try-except blocks for error handling
- Debugging techniques: print statements, debugging tools, and IDE features
- Best practices for writing clean and debug gable code
- Working on a mini project to apply all the concepts learned during the week
- Presenting and discussing the mini project with peers
- Recap of key learnings and resources for further learning
- Q&A session and feedback collection


HOD/ECE

HOD ECE

Teegala Krishna Reddy Engineering College
Medbowli Meerpet Hyderabad-97





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Medbowli, Meerpet, Hyderabad



TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Meerpet, Hyderabad - 500097

Department Of Electronics and Communication Engineering Certificate of Completion

This is to certify that **BATHINI RATHNAKAR** bearing roll number **16R91A0407** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**PYTHON PROGRAMMING**", organized by Department of **ELECTRONICS AND COMMUNICATION ENGINEERING**, Teegala Krishna Reddy Engineering College, Hyderabad, from **14-01-2019** to **19-01-2019**


HOD-ECE

(Dr. S.NAGI REDDY)
HOD ECE

Teegala Krishna Reddy Engineering College
Meerpet, Hyderabad - 500097





PRINCIPAL-TKREC

(Dr. J.V.B. SUBRAMANYAM)
Teegala Krishna Reddy Engineering Coll
Meerpet, Hyderabad

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Chairman, TKRES

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Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K. M. V. Madan Kumar

Convener:

Dr. CHE.V. Phani Krishna

Prof & HOD of CSE

Coordinators:

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Assistant Professor, CSE, TKREC

Mr. T. Rakesh Kumar

Assistant Professor, CSE, TKREC

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Assoc.Prof & Head, IT, TKREC

Dr. Adivulan Natarajan

Assoc.Prof & Head of AI&ML, TKREC

Dr. A. Sarangam

Assoc.Prof & Head CSD, TKREC

Dr. K. Bhargavi

Assoc.Professor, CSE, TKREC

About TKREC:

TKR Engineering College – a modern temple of learning, an Off shoot of the TKR Educational Society was established in the year 2002 in a sprawling, lush green 20 acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on the face and emerge victorious.

About Department:

Department of CSE was Established in the year 2005, and Offers B.Tech degree in CSE with an intake of 240, MTech in CSE with an intake of 24. It has Sophisticated infrastructural, state-of-art labs and experienced faculty. The department is keen in academic exposure of the students to the latest domain trends by conducting a series of seminars, conferences, guest lectures, faculty development programmes, industrial tours and visits, etc. In view of all these academic activities, the department has been accredited by NBA.

VISION

Enhance learning that promotes techno graduates aiming employability and entrepreneurship with human values to face the challenges in the global technological society.



A Value-added Course

on

Introduction to Web Architecture

11-03-2019

Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(Approved by AICTE, accredited by NBA & NAAC - 'A', Affiliated to JNTUH, Hyderabad, Telangana)

Resource Persons: MR. PAVAN KUMAR,

Professor CSE



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Meerpet, Hyderabad - 97.

TEEGALAKRISHNAREDDYENGINEERINGCOLLEGE

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Mob: 8498085218. Email: info@tkrec.ac.in www.tkrec.ac.in



College Code: R9

Syllabus of Value-added Course on INTRODUCTION TO WEB ARCHITECTURE

DAY1: Introduction to Web Architecture

- 1) Overview of web architecture
- 2) Evolution of the World Wide Web
- 3) Client-server model
- 4) Protocols: HTTP, HTTPS

DAY2: Frontend Development

- 1) Introduction to HTML5
- 2) Cascading Style Sheets (CSS)
- 3) Introduction to JavaScript
- 4) Document Object Model (DOM)

DAY3: Responsive Web Design and Frameworks

- 1) Responsive design principles
- 2) CSS frameworks (e.g., Bootstrap)
- 3) JavaScript frameworks (e.g., jQuery)

4: Backend Development

- 1) Introduction to server-side scripting
- 2) Common server-side scripting languages (e.g., PHP, Python, Node.js)
- 3) Handling form data
- 4) Introduction to APIs

DAYS: Database Integration

- 1) Overview of databases
- 2) Relational vs. NoSQL databases
- 3) Database design principles
- 4) Connecting backend to databases

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CollegeCode:R9

DAY6:WebSecurity

- 1)Common web security threats
- 2)Authenticationandauthorization
- 3)Securecommunication(SSL/TLS)
- 4)Bestpracticesforsecurewebdevelopment

DAY 7: Web Application Architecture

- 1)MVC(Model-View-Controller)architecture
- 2)Microservices architecture
- 3)Scalabilityandperformanceconsiderations DAY

Cypt
HOD-CSE

DR. CH. V. PRASAD KRISHNA
Head of the Department
of Computer Science and Engineering
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet, Telangana-500097



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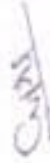
TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that **HIMANSHU KHATRI** bearing roll number **16R91A0526** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Introduction to Web Architecture**", organized by Department of **Computer Science and Engineering**, Teegala Krishna Reddy Engineering College, Hyderabad, from **11-03-2019 to 18-03-2019**.



HOD-CSE

(Dr.CH.V.Phani Krishna)




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Teegala Krishna Reddy Engineering College

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Meerpet, Hyderabad - 97.


PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)

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Secretary, TKRES
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Treasurer, TKRES

Principal:

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Vice-Principal & Dean:

Dr. K. M. V. Madan Kumar

Convener:

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Coordinators:

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VISION:

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A Value-added Course On React-JS 10-07-2018 Organized by



Department of CSE

TEEGALA KRISHNA REDDY ENGINEERING COLLEGE

(Approved by AICTE, accredited by NBA & NAAC - 'A', Affiliated to JNTUH,
Hyderabad, Telangana)

Resource Person: A. KOUNIKA,

Professor CSE



PRINCIPAL

Teegala Krishna Reddy Engineering College
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Meerpet, Hyderabad - 500030



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College Code: R9

Syllabus of Value-added Course on REACT-JS

Day 1:

- 1) Build a responsive web application for shopping cart with registration, login, catalog and cart pages using CSS3 features, flex and grid.
- 2) Make the above web application responsive web application using Bootstrap framework.

Day 2:

- 1) Use JavaScript for doing client – side validation of the pages implemented in experiment 1 and experiment 2.
- 2) Explore the features of ES6 like arrow functions, callbacks, promises, async/await. Implement an application for reading the weather information from openweathermap.org and display the information in the form of a graph on the web page.

Day 3:

- 1) Develop a java stand alone application that connects with the database (Oracle / mySql) and perform the CRUD operation on the database tables.
- 2) Create an xml for the bookstore. Validate the same using both DTD and XSD.

Day 4:

- 1) Design a controller with servlet that provides the interaction with application developed in experiment 1 and the database created in experiment 5.
- 2) Maintaining the transactional history of any user is very important. Explore the various session tracking mechanism (Cookies, HTTP Session)

Day 5:

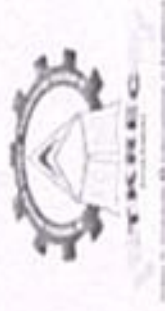
- 1) Create a custom server using http module and explore the other modules of Node JS like OS, path, event.

Day 6:

- 1) Develop an express web application that can interact with REST API to perform CRUD operations on student data. (Use Postman)



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HOD, CSE
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Meerpet, Hyderabad - 500097

Department of Computer Science and Engineering

Certificate of Completion

This is to certify that G SAIVIKAS bearing roll number 17R91A0512 of TEEGALA KRISHNA REDDY ENGINEERING COLLEGE has been completed the course on "React-JS", organized by Department of Computer Science and Engineering, Teegala Krishna Reddy Engineering College, Hyderabad, from 10-07-2018 to 18-07-2018.

CH

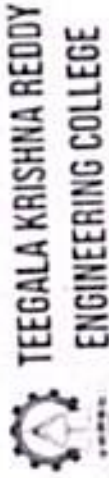
HOD-CSE

(Dr.CH. V. Phani krishna)



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Teegala Krishna Reddy Engineering College
Meerpet, Hyderabad - 97.
Dr. K. Venkata Murali Mohan
PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)



**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

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TEEGALA KRISHNA REDDY ENGINEERING COLLEGE
HYDERABAD

**One Week Workshop
ON
Data Visualisation using R
Programming**

Objective

To simplify complex data, enhance clarity, and support data-driven decisions by creating compelling, interactive visuals that facilitate insight, comparison, and effective communication of information.

Date: 24-09-2018 to 29-09-2018

**Organising by
Department of IT**

TKR Engineering College - a modern temple of learning, an Offshoot of the TKR Educational Society was established in the year 2002 in a sprawling, lush green 20-acre campus at Meerpet, Hyderabad. The college provides a serene environment to the students, boosting their mental potential and preparing them in all aspects to face the cut-throat global competition with a smile on their faces and emerge victorious.

About Department:

VISION

The program aims at creating capable engineering professionals to meet the flourishing needs of the Industry and society in the field of Information Technology.

MISSION

Impart adequate employability skills to make the students industry ready with global standards.
Inculcate ethical values and leadership qualities in addressing societal needs using Information Technology.

OUR STRENGTH

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Hon Mr. Teegala Krishna Reddy

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Patron:

Dr. Teegala Harinath Reddy

Secretary, TKRES

Co Patron:

Sri. Teegala Amarnath Reddy

Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice Principal & Dean of Academics:

Dr. K. M. V. Madan Kumar

Convener:

Dr. J. Praveen Kumar

HOD of IT

Coordinators:

Mrs. S. Pavani

Assistant Professor, TKREC

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Medbowli, Meerpet, Balapur(M), Hyderabad, Telangana- 500097

Mob: 8498085218. Email: info@tkrec.ac.in, www.tkrec.ac.in



College Code: R9

DATE: 22-09-2018

Syllabus of Data Visualization using R Programming

Introduction to Data Visualization

1. Overview of data visualization concepts and importance.
2. Introduction to R and RStudio.
3. Basic plotting functions in R.

Data Manipulation and Advanced Plotting

1. Data manipulation techniques in R using packages like dplyr and tidy.
2. Advanced plotting techniques using ggplot2 package.

Interactive Visualizations

1. Introduction to interactive visualizations using packages like plotly and shiny.
2. Hands-on exercises on creating interactive plots.

Specialized Plots and Customization

1. Creating specialized plots such as heatmaps, treemaps, and network plots.
2. Customization of plots using themes, colors, and annotations.

Real-world Applications and Case Studies

1. Application of data visualization techniques to real-world datasets.
2. Case studies and group projects where participants applied learned techniques to solve practical problems.

JPL
Head of the Department
Information Technology
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Department of Information Technology

Certificate of Completion

This is to certify that **KOTAGIRI RAHUL** bearing roll number **18R91A1230** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Data Visualization using R Programming**", organized by Department of Information Technology, Teegala Krishna Reddy Engineering College, Hyderabad, from **24-09-2018** to **29-09-2018**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr.K. Venkata Murali Mohan)



**TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE**

Approved by J. J. Reddy & Sons, Hyderabad
Approved by Government of Andhra Pradesh

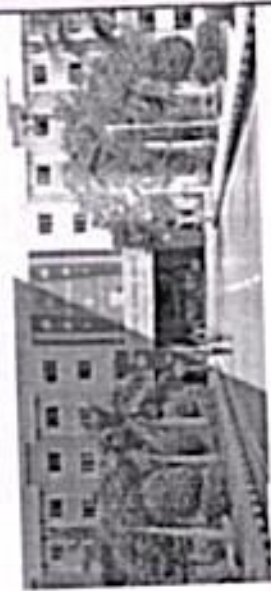
**One week Workshop
on
Embedded OS with RTOS**

Objective

To equip students with the knowledge and skills to design, develop and manage software for Embedded systems with stringent timing requirements, preparing them for careers in diverse industries.

Date: 11-03-2019 to 16-03-2019

**Organising by
Department of IT**



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About Department:

VISION

The program aims at creating capable engineering professionals to meet the flourishing needs of the Industry and society in the field of Information Technology.

MISSION

Impart adequate employability skills to make the students industry ready with global standards.
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WV

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Treasurer, TKRES

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Dr. K.V. Murali Mohan

Vice Principal & Dean of Academics:

Dr. K.M.V. Madan Kumar

Convener:

Dr. J. Praveen Kumar

HOD of IT

Coordinators:

Mrs. E. Aruna

Assistant Professor, TKREC

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College Code: R9

Date: 06-03-2019

Syllabus of Embedded OS with RTOS:

Introduction to Embedded Systems and RTOS

1. Overview of embedded systems and their characteristics.
2. Introduction to real-time operating systems.
3. Basic concepts and features of RTOS.

RTOS Kernel and Task Management

1. Understanding the RTOS kernel.
2. Task creation, scheduling, and management.
3. Hands-on exercises on task management using popular RTOS platforms.

Synchronization and Communication

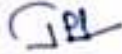
1. Inter-task communication mechanisms (semaphores, mutexes, message queues).
2. Synchronization techniques for shared resources.
3. Practical exercises on synchronization and communication.

Interrupt Handling and Device Drivers

1. Interrupt handling in RTOS-based systems.
2. Developing device drivers for embedded systems.
3. Lab sessions on implementing interrupt handlers and device drivers.

Performance Analysis and Optimization

1. Techniques for analyzing the performance of real-time embedded systems.
2. Strategies for optimizing code size and execution time.
3. Case studies and practical exercises on performance analysis and optimization.


Head of the Department
Information Technology
Teegala Krishna Reddy Engineering College
Medbowli, Meerpet



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Department of Information Technology

Certificate of Completion

This is to certify that **TUMMALA BHARGAVI** bearing roll number **18R91A1253** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Embedded OS with RTOs**", organized by Department of **Information Technology**, Teegala Krishna Reddy Engineering College, Hyderabad, from **11-03-2019** to **16-03-2019**.

HOD-IT

(Dr. J. Praveen Kumar)

PRINCIPAL-TKREC

(Dr. K. Venkata Murali Mohan)

OUR STRENGTH

Chief Patron

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Sri. Teegala Amarnath Reddy
Treasurer, TKRES

Principal:

Dr. K. V. Murali Mohan

Vice-Principal & Dean:

Dr. K. M. V. Madan Kumar

Convener:

Mr. V. Surya Narayana
Prof. & HOD of MBA

Coordinator:

Mr. P. Deepak Goud
Assistant Professor, MBA, TKREC

About TKREC:

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About Department:

TKREC MBA was established in the year 2007 with the approval of AICTE, New Delhi offers two year full-time MBA Programme, which is affiliated to Jawaharlal Nehru Technological University, Hyderabad with an intake of 60 in Management. The institute has carved a niche for itself, within a short period of time, among a host of management institutions. To

accomplish the mission of Indian in values & International in excellence, with excellent infrastructure and competent faculty, TKREC

MBA is imparting quality management education. The prime focus is on application of knowledge, development of positive attitude, diverse skills and competencies among the students. Pedagogy includes lectures, case discussions, Role-plays and simulation..

VISION:

Striving for an outstanding value based quality education, developing entrepreneurial skills to become global managers and continue to hold passion for knowledge-sharing in all facets of management education, embedding Indian culture and societal values.

A Value-Added Course

On

Business Sustainability Management
(07-01-2019 to 11-01-2019)

Organized by

MR.V.Surya Narayana



Department of MBA

TEEGALA KRISHNA REDDY
ENGINEERING COLLEGE

(Approved by AICTE, accredited by NBA
& Affiliated to JNTUH, Hyderabad,
Telangana)

Resource Person: Mr. P. Gangadhar Rao



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College Code: R9

Syllabus of Value-added Course on Business Sustainability Management

Day 1: Introduction to Business Sustainability

1. Definition and principles of sustainability
2. Triple bottom line approach
3. Business case for sustainability

Day 2: Sustainability Assessment and Metrics

1. Sustainability frameworks and standards
2. Sustainability frameworks and standards
3. Key performance indicators (KPIs) for sustainability.

Day 3: Integrating Sustainability into Business Strategy

1. Sustainable business models
2. Sustainability in corporate
3. Strategy and governance
4. Stakeholder engagement and materiality assessment.

Day 4: Sustainable Operations and Supply Chain Management

1. Greening the supply chain
2. Sustainable procurement practices
3. Resource efficiency and waste management

Day 5: Finance and Investment for Sustainability

1. Sustainable finance and investment strategies
2. Environmental, social, and governance (ESG) criteria
3. Impact investing and social entrepreneurship

HOD - MBA
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Meerpet, Hyderabad - 500097

Department of MBA

Certificate of Completion

This is to certify that **A.NAYAKA MAMATHA** bearing roll number **18R91E0001** of **TEEGALA KRISHNA REDDY ENGINEERING COLLEGE** has been completed the course on "**Business Sustainability Management**", organized by Department MBA Teegala Krishna Reddy Engineering College, Hyderabad, from **07-01-2019** to **11-1-2019**.

HOD-MBA

(Mr. V.Surya Narayana)



PRINCIPAL-TKREC

PRINCIPAL (P.K. Venkata Murali Mohan)

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