



DR. V.R.K WOMEN'S COLLEGE OF ENGINEERING AND TECHNOLOGY

Approved by AICTE & Permitted by Government of Telangana State
Affiliated to Jawaharlal Nehru Technological University Hyderabad
Aziznagar (V), Moinsabad (M), R.R. Dist. 500 075 - T.S.
Contact No. 7893044962 / 08413235962
Website : www.drvrkwomenscollege.com

INDEX

**Academic Year(2020-21) Institutional Programme Brochure /Notice
for Certificate / Value added Programs with Course Modules and
Outcomes below mentioned Add-on Programs**

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ABOUT DR. V.R.K. WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

The dawn of globalization, liberalization and privatization in India gave impetus not just to the much needed economy but also to technical education. India can now boast of having the third largest pool of scientific and technical manpower in the world. The network of technical institutions which now span the country came into being in the 1990's. At present India is a leading force to reckon with in the fields of Software industry, Space science, Biotechnology, Nuclear science.

DR. V.R.K. Women's College of Engineering and Technology (VRKW) we keep that light of the nation ablaze. The institution, ever since its foundation in 2002 is in the constant pursuit of keeping high the self imposed standards of excellence. Quality, Modernity and High Degree of Scientific Temperament pervade every facet of the institution, be it technical education, laboratories or infrastructure facilities. The campus is the abode of discipline, harmony and intellectual pursuit and a buzz with intense academic activity.

Highly qualified fraternity, sprawling campus, state-of-the-art laboratories, well equipped library, spacious playground and above all ever enthusiastic management make DR. V.R.K. Women's College of Engineering And Technology (VRKW)

ABOUT COMPUTER SCIENCE AND ENGINEERING

The department has been rated very high in academic Circles. The graduates from this department include many renowned technocrats, researchers and academicians working all over the world. The department provides a platform for the faculty and students of engineering colleges in the country to pursue their interest in basic and applied research. The department conducts various conferences, seminars and workshops on frontier areas of research in technical institution in India

CHIEF PATRON

Mr. Mohd. Shah Alam Rasool Khan,
Chairman-DR. V.R.K Educational
Society

PATRON

Dr.B.Sasi Kumar
Principal

CONVENER

Dr.G.KALAIMANI

Professor & HOD/CSE Dept.

CO-ORDINATOR

Mrs Mubeena Anjum
Assistant Professor/CSE Dept.

NO REGISTRATION FEE

THREE WEEKS

ADD-ON PROGRAMME FOR THE STUDENTS

of

Department of Computer Science and Engineering

ON

Data Analytics and Mining
08-09-2020 to 28-09-2020
(03:30PM to 05:30PM)



Organized by

Department of
Computer Science and Engineering

**DR. V.R.K. Women's College of Engineering &
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(Affiliated to JNTUH & Approved by AICTE, New Delhi)
Aziz Nagar, Moinabad, Ranga Reddy District - 75,
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Aziznagar (V), Moinabad (M), R.R. Dist. 500 075 - T.S.

Contact No. 7893044962 / 08413235962

Website : www.drvrkwomenscollege.com

Date:05-09-2020

Department of Computer Science and Engineering

Circular

All the students of III-B.Tech (CSE) are informed that Department of Computer Science and Engineering is proposed to conduct an **ADD-ON PROGRAM** on "Data Analytics and Mining" from 08-09-20 to 28-09-20 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Mrs.Mubeena Anjum, Program Coordinator on or before 07-09-20.

To

All the students of CSE (B.Tech)

Mrs.Mubeena Anjum, Assistant Professor in CSE, Program coordinator

Copy to:

1. The Principal
2. IQAC.
3. Department Notice Board



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HOD

CSE DEPARTMENT

HEAD OF THE DEPARTMENT
COMPUTER SCIENCE & ENGINEERING
DR. VRK WOMEN'S COLLEGE OF
ENGINEERING & TECHNOLOGY



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Contact No. 7893044962 / 08413235962

Website : www.drvrkwomenscollege.com

Date:31-08-2020

Department of Computer Science and Engineering

ADD-ON PROGRAM

ON

Data Analytics & Mining (DAAN01)

Curriculum and Syllabus

08-09-20 to 28-09-2020

Total Hours: 34 Hrs

PROGRAM OBJECTIVES:

- This course introduces participants to Data Analytic & Mining tools and best practices for deploying, evaluating, monitoring and operating production ML systems on Cloud.
- Data Analytic & Mining is a discipline focused on the deployment, testing, monitoring, and automation of ML systems in production.
- Machine Learning Engineering professionals use tools for continuous improvement and evaluation of deployed models

PROGRAM OUTCOMES: At the end of the course participants will be able to:

- Build upon the Cloud computing and data engineering concepts
- Apply Machine Learning Engineering to real-world projects
- You will dive into emerging topics in Machine Learning including Data

Module:1 Introduction to Data Mining-kinds of data, Data Mining Functionalities, Task Primitives, Issues in Data Mining, Data Preprocessing, Text Analytics.

Module:2 Basic Concepts, Frequent Item set Mining methods, Association Rules, Correlation analysis, Data Collection, Data Visualization, Forecasting Analytics.

Module:3 Issues Regarding Classification and prediction, Decision Tree Induction Classification, Bayesian And Rule Based Classification

Module: 4 Cluster Analysis, Types Of Data in Cluster Analysis.

Module: 5 Application And Trends in Data mining, Machine Learning, Big Data




PROGRAM COORDINATOR

ABOUT DR. V.R.K. WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

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CHIEF PATRON

Mr. Mohd. Shah Alam Rasool Khan,
Chairman-DR. V.R.K Educational
Society

PATRON

Dr.B.Sasi Kumar
Principal

CONVENER

Dr.G.KALAIMANI
Professor & HOD/CSE Dept.

CO-ORDINATOR

Dr.G.Kalaimani,
Professor/CSF Dept.

NO REGISTRATION FEE

THREE WEEKS

ADD-ON PROGRAMME FOR THE STUDENTS

of
Department of Computer Science and Engineering

ON

Big Data Management

08-09-2020 to 28-09-2020
(03:30PM to 05:30PM)



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Contact No. 7893044962 / 08413235962

Website : www.drvrkwomenscollege.com

Date:06-09-2020

Department of Computer Science and Engineering

Circular

All the students of II-B.Tech (CSE) are informed that Department of Computer Science and Engineering is proposed to conduct an **ADD-ON PROGRAM** on "Big Data Management" from 08-09-20 to 28-09-20 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Dr.G.Kalaimani, Program Coordinator on or before 07-09-20.

To

All the students of CSE (B.Tech)

Dr.G.Kalaimani, Professor in CSE, Program coordinator

Copy to:

1. The Principal
2. IQAC.
3. Department Notice Board



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CSE DEPARTMENT

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COMPUTER SCIENCE & ENGINEERING
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Contact No. 7893044962 / 08413235962

Website : www.drvrkwomenscollege.com

Date:31-08-2020

Department of Computer Science and Engineering

ADD-ON PROGRAM

ON

Big Data Management (BIGD01)

Curriculum and Syllabus

08-09-20 to 28-09-2020

Total Hours: 34 Hrs

PROGRAM OBJECTIVES:

To understand big data.

- To learn and use NoSQL big data management.
- To learn mapreduce analytics using Hadoop and related tools.
- To work with map reduce applications
- To understand the usage of Hadoop related tools for Big Data Analytics

PROGRAM OUTCOMES: At the end of the course participants will be able to:

- 1:Describe big data and use cases from selected business domains.
- 2:Explain NoSQL big data management.
- 3:Install, configure, and run Hadoop and HDFS.
- 4:Perform map-reduce analytics using Hadoop.
- 5:Use Hadoop-related tools such as HBase, Cassandra, Pig, and Hive for big data analytics.

Module I UNDERSTANDING BIG DATA Introduction to big data – convergence of key trends – unstructured data– big data applications– big data technologies – introduction to Hadoop – open source technologies.

Module II NOSQL DATA MANAGEMENT Introduction to NoSQL – aggregate data models – key-value and document data models – relationships – graph databases – schemaless databases – materialized.

Module III MAP REDUCE APPLICATIONS MapReduce workflows – unit tests with MRUnit – test data and local tests – anatomy of MapReduce job run – classic Map-reduce – YARN – failures in classic Map.

Module IV BASICS OF HADOOP Data format – analyzing data with Hadoop – scaling out – Hadoop streaming – Hadoop pipes – Java interface – data flow – Hadoop I/O – data integrity – compression – serialization – Avro – file-based data structures.

Module V HADOOP RELATED TOOLS Hbase – data model and implementations – Hbase clients – Hbase examples – praxis. Pig – Grunt – pig data model – Pig Latin – developing and testing Pig Latin scripts. Hive – data types and file formats


PROGRAM COORDINATOR



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PATRON

Dr.B.Sasi Kumar
Principal

CONVENER

Dr.G.KalaiMani
Professor & HOD CSE Dept.

CO-ORDINATOR

Mr.DVGS Prasad
Asst.Professor/CSE Dept.

NO REGISTRATION FEE

THREE WEEKS

ADD-ON PROGRAMME FOR THE STUDENTS

of
Department of Computer Science and Engineering

ON

DATA VISUALIZATION

15-02-2021 to 05-03-2021
(03:30PM to 05:30PM)



Organized by

Department of
Computer Science & Engineering

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Date:09-02-2021

Department of Computer Science and Engineering

Circular

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To

All the students of CSE (B.Tech)

Mr.DVGS Prasad ,Assistant Professor in CSE, Program coordinator

Copy to:

1. The Principal
2. IQAC.
3. Department Notice Board



[Signature]
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04.02.2021

Department of Computer Science and Engineering ADD-ON PROGRAM

ON

Data Visualization (DATV03) Curriculum and Syllabus 15-02-2021 to 05-03-2021

Total Hours: 34 HRs

PROGRAMME OBJECTIVES:

1. Gaining a basic understanding of the subject (e.g., factual knowledge, methods, principles, generalizations, theories)
2. Learning to analyze and critically evaluate ideas, arguments, and points of view.
3. Learning appropriate methods for collecting, analyzing, and interpreting numerical information
4. Developing specific skills, competencies, and points of view needed by professionals in the field most closely related to this course

PROGRAMME OUTCOMES: At the end of the course participants will be able to:

1. Understand the fundamental design principles and different types of data visualization.
2. Identify both positive and negative impacts of data-informed decision across a variety of domains.
3. Apply the fundamental concepts of data visualization to define a project in your field of study.
4. Practice the core principles using widely available tools (e.g. Tableau).
5. Demonstrate the best practice that presents your story in the process of creating data visualization including connecting to different data sources, assessing to the quality of the data, and converting raw data into data visualizations that provide actionable information.

Module :1 Introduction to Data Visualization, Benefits of Data Visualization, Data Visualization tools, Features of Data Visualization

Module :2 Data Transformation, Bar chart, Pie chart, Scalar and point techniques, – vector visualization techniques, – multidimensional techniques, – visualizing cluster analysis – matrix visualization in Bayesian data analysis

Module: 3 Time series chart, Area Chart, Interaction Techniques, Examples from each of the interaction spaces, and guidelines for implementing some of the user interaction dialogs needed to specify some of the types of interaction. Note that many of the algorithms discussed here could actually be applied to interactions in multiple spaces

Module: 4 Heat Map, Geo Map, Symbol Map, Filled Map

Module: 5 Dashboard, Creating Dashboard, Formatting a Dashboard, Sharing reports




PROGRAM COORDINATOR

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Chairman-DR. V.R.K Educational
Society

PATRON

Dr.B.SASI KUMAR
Principal

CONVENER

Dr.G.KALAIMANI
Professor & HOD CSE Dept.

CO-ORDINATOR

Dr. Mohammed Akheel
Professor/CSE Dept.

NO REGISTRATION FEE

THREE WEEKS

ADD-ON PROGRAMME FOR THE STUDENTS

of

Department of Computer Science and Engineering

ON

Internet of Things

08-02-2021 to 27-02-2021
(03:30PM to 05:30PM)



Organized by

Department of

COMPUTER SCIENCE AND ENGINEERING

**DR. V.R.K. Women's College of Engineering &
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01-02-2021

Department of Computer Science and Engineering

Circular

All the students of IV-B. Tech (CSE) are informed that Department of Computer Science and Engineering is proposed to conduct an **ADD-ON PROGRAM** on "Internet of Things" from 08-02-2021 to 27-02-2021 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Dr.Mohammed Akheel, Program Coordinator on or before 03-02-2021

To

All the students of CSE (B. Tech)

Dr.Mohammed Akheel, Professor in CSE, Program coordinator

Copy to:

1. The principal
2. IQAC.
3. Department Notice Board



C. Kalaji
HOD

CSE DEPARTMENT



**HEAD OF THE DEPARTMENT
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Website : www.drvrkwomenscollege.com

02-02-2021

Department of Computer Science and Engineering

ADD-ON PROGRAM

ON

Internet of things (IOTI04)

Curriculum and Syllabus

08-02-2021 to 27-02-2021

Total Hours: 32 HRs

PROGRAMME OBJECTIVES:

To introduce the terminology, technology and its applications

- To introduce the concept of M2M (machine to machine) with necessary protocols
- To introduce the Python Scripting Language which is used in many IoT devices
- To introduce the Raspberry Pi platform, that is widely used in IoT applications
- To introduce the implementation of web-based services on IoT devices

PROGRAMME OUTCOMES: At the end of the course participants will be able to:

- Understanding of IoT value chain structure (device, data cloud), application areas and technologies involved.
- Understand IoT sensors and technological challenges faced by IoT devices, with a focus on wireless, energy, power, and sensing modules
- Market forecast for IoT devices with a focus on sensors
- Explore and learn about Internet of Things with the help of preparing projects designed for Raspberry Pi

Unit I. Introduction to Internet of Things: IoT: Definition and importance, Characteristics of IoT, Physical design of IoT, Logical design of IoT, Functional blocks of IoT, Three-layer and Five-layer model of IoT.

Unit II. IoT Communication network: Architecture of IoT, Communication network: Home Area Network (HAN), Neighborhood Area Network (NAN), Field Area Network (FAN), Wide Area Network (WAN), Wireless Sensor Networks (WSNs).

Unit III. V. IoT Sensors/Actuators and IoT Challenges: IoT: Sensor Technology, Mobile Phone Based Sensors, Medical Sensors, Neural Sensors.

Unit IV. Application of IoT: Smart Homes: Smart Appliances, Security and Safety. Smart Energy: Smart Meters, Automatic Meter Reading (AMR).



PROGRAM COORDINATOR

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Chairman-DR. V.R.K Educational
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PATRON

Dr.B. SASI KUMAR
Principal

CONVENER

Dr.G.KALAIMANI
Professor & HOD CSE Dept.

CO-ORDINATOR

Dr. B. SASI KUMAR
Professor/CSE Dept.

NO REGISTRATION FEE

THREE WEEKS

ADD-ON PROGRAMME FOR THE STUDENTS

of
Department of Computer Science and
Engineering(PG)

ON

Scripting Language

08-02-2021 to 27-02-2021

(03:30PM to 05:30PM)



Organized by

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Computer Science and Engineering

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COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PGECET	VRKW

Date:04-02-2021

Department of Computer Science and Engineering

Circular

All the students of IVth year B.Tech (CSE) are informed that Department of Computer Science and Engineering is proposed to conduct an **ADD-ON PROGRAM** on " **SCRIPTING LANGUAGE**" from 08-02-2021 to 27-02-2021 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Dr. Mohammed Akheel, Program Coordinator on or before 08-02-2021.

To

All the students of CSE (B.Tech)

Dr. Mohammed Akheel, Associate Professor in CSE, Program coordinator

Copy to:

1. The Principal
2. IQAC.
3. Department Notice Board



C. Kalraj
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CSE DEPARTMENT
HEAD OF THE DEPARTMENT
COMPUTER SCIENCE & ENGINEERING
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Contact No. 7893044962 / 08413235962
Website : www.drvrkwomenscollege.com

Date: 02.02.2021

Department of Computer Science and Engineering

ADD-ON PROGRAM

ON

SCRIPTING LANGUAGE (SCIR05)

Curriculum and Syllabus

08-02-2021 to 27-02-2021

Total Hours: 32 HRs

COURSE OBJECTIVES: The course demonstrates an in depth understanding of the tools and the scripting languages necessary for design and development of web applications

COURSE OUTCOMES: At the end of this course student will

- Identify the differences between typical scripting languages and typical system and application programming languages
- Apply your knowledge of the strengths and weaknesses of scripting languages to select an implementation language
- Create software systems using scripting languages, including PHP and Python
- Write server-side scripts using PHP and Python's CGI facilities

Module1 PHP Basics- Features, Embedding PHP Code in your Web pages, Data types, Variables, Constants, expressions, string interpolation, control structures, Function, Creating a Function, Function Libraries, Arrays, strings and Regular Expressions.

Module 2 Advanced PHP Programming and Web Forms, Files, PHP Authentication and Methodologies -Hard Coded, File Based, Database Based, IP Based, Login Administration,

Module 3 Uploading Files with PHP, Sending Email using PHP, PHP Encryption Functions, Building Web sites for the World, Translating Files, text, Generate Binary Files, Set the desired language within your scripts.

Module 4 Python Introduction to Python language, python-syntax, statements, functions, Built-in-functions and Methods, Modules in python, Exception Handling, Integrated Web Applications in Python

Module 5 Building Small, Efficient Python Web Systems, Web Application Framework


PROGRAM COORDINATOR



ABOUT DR. V.R.K. WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

The dawn of globalization, liberalization and privatization in India gave impetus not just to the much needed economy but also to technical education. India can now boast of having the third largest pool of scientific and technical manpower in the world. The network of technical institutions which now span the country came into being in the 1990's. At present India is a leading force to reckon with in the fields of Software industry, Space science, Biotechnology, Nuclear science.

DR. V.R.K. Women's College of Engineering and Technology (VRKW) we keep that light of the nation ablaze. The institution, ever since its foundation in 2002 is in the constant pursuit of keeping high the self imposed standards of excellence. Quality, Modernity and High Degree of Scientific Temperament pervade every facet of the institution, be it technical education, laboratories or infrastructure facilities. The campus is the abode of discipline, harmony and intellectual pursuit and a buzz with intense academic activity.

Highly qualified fraternity, sprawling campus, state-of-the-art laboratories, well equipped library, spacious playground and above all ever enthusiastic management make DR. V.R.K. Women's College of Engineering And Technology (VRKW)

ABOUT ELECTRONICS AND COMMUNICATION ENGINEERING

The department has been rated very high in academic Circles. The graduates from this department include many renowned technocrats, researchers and academicians working all over the world. The department provides a platform for the faculty and students of engineering colleges in the country to pursue their interest in basic and applied research. The department conducts various conferences, seminars and workshops on frontier areas of research in technical institution in India

CHIEF PATRON

Mr. Mohd. Shah Alam Rasool Khan,
Chairman-DR. V.R.K Educational
Society

PATRON

Dr.B.Sasi Kumar
Principal

CONVENER

Dr.SHAIK SAIDULU
Professor & HOD ECE Dept.

CO-ORDINATOR

Dr.Guguloth Ravi Kumar
Professor/ECE Dept.

NO REGISTRATION FEE

THREE WEEKS

ADD-ON PROGRAMME FOR THE STUDENTS

of
Department of Electronics and communication
Engineering

ON

IoT using Arduino
08-02-21 to 27-02-2021
(03:30PM to 05:30PM)



Organized by

Department of
Electronics and communication Engineering

**DR. V.R.K. Women's College of Engineering &
Technology**

(Affiliated to JNTUH & Approved by AICTE, New Delhi)
Aziz Nagar, Moinabad, Ranga Reddy District - 75,
Telangana, India.

<http://www.drvrkwomenscollege.com>



Dr. VRK WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

Approved by AICTE & Permitted by Government of Telangana State
Affiliated to J.M.T.U, Hyderabad.

Aziznagar (V), Moinsabad (M), R.R. Dist. 500 075 - T.S.
Contact No. 7893044962 / 08413235962

COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PGCET	VRKW

Date:30-01-21

Department of Electronics and communication Engineering

Circular

All the students of B.Tech (ECE) are informed that Department of Electronics and communication Engineering is proposed to conduct an **ADD-ON PROGRAM** on " **IOT using Arduino**" from 08-02-21 to 27-02-21 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Dr.Guguloth Ravi Kumar, Program Coordinator on or before 06-02-21.

To

All the students of ECE (B.Tech)

Dr.Guguloth Ravi Kumar, Professor in ECE, Program coordinator

Copy to:

1. The Principal
2. IQAC.
3. Department Notice Board



HOD
ECE DEPARTMENT
HEAD OF THE DEPARTMENT
ELECTRONICS & COMMUNICATION & ENGINEERING
DR. VRK WOMEN'S COLLEGE OF
ENGINEERING & TECHNOLOGY



Dr. VRK WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

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Affiliated to J.N.T.U, Hyderabad.
Aziznagar (V), Molnabad (M), R.R. Dist. 500 075 - T.S.
Contact No. 7893044962 / 08413235962

COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PGEET	VRKW

30-01-2021

Department of Electronics and Communication Engineering

ADD-ON PROGRAM

ON

IOT using Arduino(ECE003)

Curriculum and Syllabus

08-02-2021 to 27-02-2021

Total Hours: 32 Hrs

PROGRAMME OBJECTIVES:

The course gives shall provide an overview of latest IoT trends and practical working experience in Arduino board for various applications.

PROGRAMME OUTCOMES:

After the completion of the course, the students will be able understand the pros of IoT in modern day life, shall learn programming in microcontroller and get hands on experience in designing various IoT applications

Module 1: **Introduction to IOT**

Understanding IoT fundamentals. IOT Architecture and protocols. Various Platforms for IoT. Real time Examples of IoT. Overview of IoT components and IoT Communication Technologies. Challenges in IOT

Module 2: **Arduino Simulation Environment**

Arduino Uno Architecture. Setup the IDE, Writing Arduino Software. Arduino Libraries. Basics of Embedded C programming for Arduino. Interfacing LED, push button

Module: 3 **Sensor and Actuators with Arduino**

Overview of Sensors working. Analog and Digital Sensors. Interfacing of Temperature, Humidity, Motion, Light and Gas Sensor with. Arduino. Interfacing of Actuators with Arduino. Interfacing of Relay Switch and Servo Motor with Arduino

Module: 4 **Basic Networking with ESP8266 WiFi module**

Basics of Wireless Networking. Introduction to ESP8266 Wi-Fi Module. Various Wi-Fi library. Web server- introduction, installation, configuration. Posting sensor(s) data to web server

Module: 5 **Cloud Platforms for IOT**

Virtualization concepts and Cloud Architecture. Cloud computing, benefits. Cloud services -- SaaS, PaaS, IaaS. Cloud providers & offerings. Study of IOT Cloud platforms. ThingSpeak API and MQTT. Interfacing ESP8266 with Web services.



S. Ramesh
PROGRAM COORDINATOR

ABOUT DR. V.R.K. WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

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ABOUT ELECTRICAL AND ELECTRONICS ENGINEERING

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CHIEF PATRON

Mr. Mohd. Shah Alam Rasool Khan,
Chairman-DR. V.R.K Educational
Society

PATRON

Dr.B.Sasi Kumar
Principal

CONVENER

Dr.Prema Latha
Professor & HOD EEE Dept.

CO-ORDINATOR

Syed Riyaz Ahmed,
Assistant Professor, EEE Dept

NO REGISTRATION FEE

THREE WEEKS

ADD-ON PROGRAMME FOR THE STUDENTS

of
Department of Electrical and Electronics
Engineering

ON

Electrical Smart Grids
08-09-20 to 28-09-2020
(03:30PM to 05:30PM)



Organized by

Department of Electrical and Electronics
Engineering

**DR. V.R.K. Women's College of Engineering &
Technology**

(Affiliated to JNTUH & Approved by AICTE, New Delhi)
Aziz Nagar, Moinabad, Ranga Reddy District - 75,
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Contact No. 7893044962 / 08413235962

COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PGETET	VRKW

Date:01-09-20

Department of Electrical and Electronics Engineering.

Circular

All the students of II B.Tech (EEE) are informed that Department of Electrical and Electronics Engineering, is proposed to conduct an **ADD-ON PROGRAM** on " **Electrical Smart Grids**" from 08-09-20 to 28-09-20 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Mr.Syed Riyaz Ahmed, Assistant Professor, Program Coordinator on or before 31-08-20.

To

All the students of EEE (B.Tech)

Mr.Syed Riyaz Ahmed, Assistant Professor, in EEE, Program coordinator

Copy to:

1. The Principal
2. IQAC.
3. Department Notice Board




HOD
EEE DEPARTMENT

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ELECTRICAL & ELECTRONICS ENGINEERING
DR. VRK WOMEN'S COLLEGE OF
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DR. V.R.K WOMEN'S COLLEGE OF ENGINEERING AND TECHNOLOGY

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Affiliated to Jawaharlal Nehru Technological University Hyderabad
Aziznagar (V), Moinsabad (M), R.R. Dist. 500 075 - T.S.
Contact No. 7893044962 / 08413235962
Website : www.dvrkwomenscollege.com

Date:08-09-2020

Department of Electrical and Electronics Engineering

ADD-ON PROGRAM

ON

Electrical Smart Grids(EEESG08)

Curriculum and Syllabus

08-09-2020 to 28-09-2020

34 (HOURS)

COURSE OBJECTIVES:

1. Introduce fundamental principles and technologies of electrical smart grids.
2. Foster analytical skills to design and optimize smart grid systems.
3. Develop expertise in implementing control strategies for reliable and sustainable smart grid operation.
4. Examine the impact of smart grid technologies on the existing electrical power infrastructure.
5. Encourage innovative thinking to propose solutions for challenges in smart grid implementation.

COURSE OUTCOMES:

Students will be able to :

1. Demonstrate a deep understanding of the principles and technologies behind electrical smart grids.
2. Apply analytical skills to design and optimize smart grid systems for efficient energy management.
3. Implement control strategies for smart grids, considering reliability and sustainability.
4. Evaluate the impact of smart grid technologies on the electrical power infrastructure.
5. Develop the ability to propose innovative solutions for challenges in electrical smart grid implementation.

MODULE I: Introduction to Smart Grids

Overview of Smart Grid Concepts, Components and Architecture of Smart Grids, Smart Grid Communication Technologies

MODULE II: Design and Optimization of Smart Grids

Power System Analysis for Smart Grids, Renewable Energy Integration, Energy Storage Solutions in Smart Grids

MODULE III: Control Strategies in Smart Grids

Demand Response and Load Management, Advanced Metering Infrastructure (AMI), Fault Detection and Diagnostics in Smart Grids

MODULE IV: Impact and Challenges of Smart Grids

Environmental and Economic Impact, Cybersecurity in Smart Grids, Regulatory and Policy Considerations.




PROGRAM COORDINATOR

ABOUT DR. V.R.K. WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

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ABOUT HUMANITIES AND SCIENCES

The department has been rated very high in academic Circles. The graduates from this department include many renowned technocrats, researchers and academicians working all over the world. The department provides a platform for the faculty and students of engineering colleges in the country to pursue their interest in basic and applied research. The department conducts various conferences, seminars and workshops on frontier areas of research in technical institution in India

CHIEF PATRON

Mr. Mohd. Shah Alam Rasool Khan,
Chairman-DR. V.R.K Educational
Society

PATRON

Dr.B.Sasi Kumar
Principal

CONVENER

Dr. Touseef Humaira
Professor & HOD H&S Dept.

CO-ORDINATOR

Ms. B. Poojitha,
Assistant Professor in H&S

NO REGISTRATION FEE

THREE WEEKS

**ADD-ON PROGRAMME
FOR THE STUDENTS**

of
Department of Humanities & Science

ON

**Know your electrical appliances -
selection, protection and safety"**

From 01-12-20 to 22-12-20
3:30 PM to 5:30 PM



Organized by

Department of
Humanities & Science

DR. V.R.K. Women's College of Engineering &
Technology

(Affiliated to JNTUH & Approved by AICTE, New Delhi)
Aziz Nagar, Moinabad, Ranga Reddy District - 75,
Telangana, India.

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COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PCECET	VRKW

Date: 23-11-2020

Department of Humanities and Sciences

Circular

(Applied Physics)

All the students of I Yr-B.Tech are informed that Department of Humanities and Sciences is proposed to conduct an **ADD-ON PROGRAM** on **"Know your Electrical appliances - Selection, Protection and Safety"** from 01-12-2020 to 22-12-2020 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Ms. B .Poojitha, Program Coordinator on or before 30-11-2020.

To

All the students of H&S (CSE I Yr. B.Tech)
Ms B. Poojitha,
Assistant Professor in H&S,
Program coordinator

Copy to:

1. The Principal
2. IQAC.
3. Department Notice Board



[Signature]
HOD
H&S DEPARTMENT

HEAD OF THE DEPARTMENT
HUMANITIES AND SCIENCE
DR.V.R.K WOMEN'S COLLEGE



Dr. VRK WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

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Aziznagar (V), Moinsabad (M), R.R. Dist. 500 075 - T.S.
Contact No. 7893044962 / 08413235962

COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PGEET	VRKW

Date: 05-09-2020

Department of Humanities and Sciences

ADD-ON PROGRAM

ON

Know your electrical appliances - Selection, Protection and Safety(HS0003)

Curriculum and Syllabus

08-09-20 to 28-09-20

Total Hours: 34 Hrs

PROGRAM OBJECTIVES:

1. To understand basic concepts of electrical devices /components
2. To understand basic domestic appliances and their ratings
3. To understand protection and safety of electric equipment and power consumption
4. to able to select good electrical appliances

PROGRAM OUTCOMES: After completion of studying physics ad on course, student is able to:

1. *Know the basic electrical devices or components*
2. *Realize the importance of protection and safety of electrical appliances*
3. *Learn the uses of electrical devices/ components*
4. *Learn the principles of basic electric appliances*
5. *Learn to measure the power consumption of basic electrical appliances*

Course Overview: This course aims to educate students on the proper selection, usage, protection, and safety considerations associated with electrical appliances commonly used in households and industries.

Module 1: Introduction to Electrical Appliances

1.1 Definition and types of electrical appliances

1.2 Common applications in households and industries 1.3 Importance of understanding electrical appliances.

Module 2: Electrical Fundamentals

2.1 Basics of electricity

2.2 Voltage, current, and resistance

2.3 Ohm's Law and its application to electrical appliances

Module 3: Selection Criteria for Electrical Appliances 3.1 Understanding specifications and ratings 3.2 Matching appliances to electrical systems 3.3 Energy efficiency considerations.

Module 4: Safety Measures 4.1 Electrical safety principles 4.2 Grounding and earthing 4.3 Protection against electric shock 4.4 Fire safety measures.

Module 5: Protection Devices 5.1 Fuses and circuit breakers 5.2 Surge protectors 5.3 Overload protection 5.4 Ground fault circuit interrupters (GFCIs).

Module 6: Installation and Maintenance 6.1 Proper installation procedures 6.2 Regular maintenance practices 6.3 Troubleshooting common issues.

Module 7: Regulations and Standards

7.1 Overview of relevant electrical codes and standards

7.2 Compliance with safety regulations

7.3 Inspection and certification requirements.

Module 8: Case Studies and Practical Applications

8.1 Real-world examples of appliance-related incidents

8.2 Hands-on exercises and demonstrations 8.3 Group projects related to appliance safety.



[Handwritten Signature]
PROGRAM COORDINATOR