



# 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](http://www.drvrkwomenscollege.com)

## INDEX

**Academic Year (2019-20) 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**

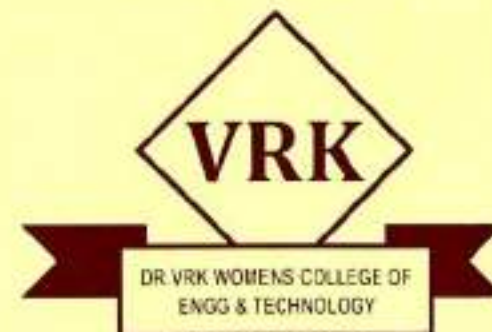
### **THREE WEEKS**

**ADD-ON PROGRAMME  
FOR THE STUDENTS  
of**

Department of Computer Science and Engineering

**ON**

**Image processing**  
22-07-19 to 17-08-2019  
(03:30PM to 05:30PM)



**Organized by**

Department of  
Computer Science and 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

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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
PGE CET	VRKW

Date: 20-07-2019

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 "**Image processing**" from 22-07-19 to 17-08-19 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Mrs.Mubeena Anjum, Assistant Professor, Program Coordinator on or before 20-07-19.

To

All the students of CSE (B.Tech)

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

Copy to:

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



*G. Kalasi*  
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CSE DEPARTMENT

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COMPUTER SCIENCE & ENGINEERING  
DEPT/VII WOMEN'S COLLEGE OF  
ENGINEERING & TECHNOLOGY



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Website : www.drvrkwomenscollege.com

20-07-2019

## Department of Computer Science and Engineering ADD-ON PROGRAM

ON

Image Processing (IMPR01)

Curriculum and Syllabus

22-07-19 to 17-08-2019

**Total Hours: 40 HRs**

### PROGRAM OBJECTIVES:

- To understand the sensing, acquisition and storage of digital images.
- To study the image fundamentals and mathematical transforms necessary for image processing.
- To understand the digital processing systems and corresponding terminology.
- To understand the base image transformation domains and methods.
- To have an understanding of color models, type of image representations and related statistics.
- To study image enhancement techniques.
- To study image compression procedures.
- To study image segmentation and representation techniques.
- To study image restoration.

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

- Be able to understand the basic concepts image processing, image storage and types of transformations that can be applied to images.
- Be able to check the correctness of algorithms using inductive proofs and loop invariants.
- Learn image restoration and enhancement techniques, color image processing.
- Be able to make proper use of image processing tools.
- Familiar with morphological image processing.

Module :I Intoduction to computer graphics, Introduction of coordinate representation and pixel

Module :1. Image processing fundamentals, Image processing system components, Image sensing and acquisition

Module: 3 Image Enhancement, Low pass and high pass filtering

Module: 4 Image Restoration, Adaptive filters

Module: 5 Color Image processing, Color transformation and segmentation,

Module: 6 Image compression, Error free and lossy compression

Module: 7 Morphological Image processing Overview



**PROGRAM COORDINATOR**

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Society

### PATRON

Dr.B.SASI KUMAR  
Principal

### CONFENER

Dr.GEKALAIMANI  
Professor & HOD/CSE Dept.

### CO-ORDINATOR

Mrs.Mubeena Anjum  
Asst.Professor/CSE Dept.

NO REGISTRATION FEE

### THREE WEEKS

ADD-ON PROGRAMME  
FOR THE STUDENTS  
of

Department of Computer Science and Engineering

ON

*Deep Learning*

22-07-2019 to 17-08-2019  
(03:30PM to 05:30PM)



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Date:19-07-2019

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 "**Deep Learning**" from 22-07-2019 to 17-08-2019 (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 20-07-19.

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



*[Signature]*  
HOD  
CSE DEPARTMENT

**HEAD OF THE DEPARTMENT  
COMPUTER SCIENCE & ENGINEERING  
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*[Signature]*



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Date:20-07-19

## Department of Computer Science and Engineering ADD-ON PROGRAM(2019-2020)

### ON Deep Learning(DEEP02) Curriculum and Syllabus 22-07-19 TO 17-08-19

**Total Hours: 40 HRs**

#### PROGRAM OBJECTIVES:

- To understand the basics in deep neural networks
- To understand the basics of associative memory and unsupervised learning networks
- To apply CNN architectures of deep neural networks
- To analyze the key computations underlying deep learning, then use them to build and train deep neural networks for various tasks.
- To apply autoencoders and generative models for suitable applications

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

- At the end of this course, the students will be able to:
- Apply Convolution Neural Network for image processing.
- Understand the basics of associative memory and unsupervised learning networks.
- Apply CNN and its variants for suitable applications.
- Analyze the key computations underlying deep learning and use them to build and train deep neural networks for various tasks.
- Apply autoencoders and generative models for suitable applications

Module :1 Neural Networks-Application Scope of Neural Networks-Artificial Neural Network:  
An Introduction Evolution of Neural Networks-Basic Models of Artificial Neural Network

Module :2 Training Algorithms for Pattern Association-Autoassociative Memory Network-  
Heteroassociative Memory Network

Module: 3 Spiking Neural Networks-Convolutional Neural Networks-Deep Learning Neural  
Networks-Extreme Learning Machine Model-Convolutional Neural Networks: The  
Convolution Operation – Motivation – Pooling.

Module: 4 - Gradient Learning – Chain Rule and Backpropagation - Regularization: Dataset  
Augmentation – Noise Robustness

Module: 5 Introduction – Recursive Neural Networks – Bidirectional RNNs – Deep Recurrent  
Networks



  
PROGRAM COORDINATOR

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Dr.B.SASI KUMAR  
Principal

### CONVENER

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

### CO-ORDINATOR

Dr.G.KALAIMANI  
Professor/CSE Dept.

NO REGISTRATION FEE

### THREE WEEKS

ADD-ON PROGRAMME  
FOR THE STUDENTS

of  
Department of Computer Science and Engineering

ON

### Natural Language Processing

03-01-20 to 28-01-20  
(03:30PM to 05:30PM)



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**DR. V.R.K. Women's College of Engineering &  
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COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PGEET	VRKW

Date:30-12-2019

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 "Natural language processing" from 03-01-20 to 28-01-20 (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 02-01-2020.

#### 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



*G. Kalaj*  
HOD

CSE DEPARTMENT

HEAD OF THE DEPARTMENT  
COMPUTER SCIENCE & ENGINEERING  
DR. VRK WOMEN'S COLLEGE OF  
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Website : www.dvrkwomenscollege.com

Date: 29-12-2020

## Department of Computer Science and Engineering ADD-ON PROGRAM(2019-2020)

ON

### Natural Language Processing(NLPR03) Curriculum and Syllabus

03-01-20 to 28-01-2020

**Total Hours: 38 HRs**

#### PROGRAM OBJECTIVES:

- Introduction to some of the problems and solutions of NLP and their relation to linguistics and statistics.

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

- Show sensitivity to linguistic phenomena and an ability to model them with formal grammars.
- Understand and carry out proper experimental methodology for training and evaluating empirical NLP systems.
- Able to manipulate probabilities, construct statistical models over strings and trees, and estimate parameters using supervised and unsupervised training methods.
- Able to design, implement, and analyze NLP algorithm
- Able to design different language modelling techniques.

Module :1 Course Overview-Finding the structure of words,  
finding the structure of documents

Module :2 Syntax analysis- Parsing natural language, Treebanks, A Data-Driven approach to  
syntax, Representation of syntactic structure, Parsing algorithm.

Module: 3 Semantic Parsing, Semantic interpretation,  
system paradigms, word sense systems, Building your Corpus.

Module: 4 Predicate-Argument structure,  
Meaning Representation system, software.

Module: 5 Discourse Processing , Language Processing.



*C. Kalaji*  
PROGRAM COORDINATOR

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

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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.L.C.Marikandan  
Professor/CSE Dept.

**NO REGISTRATION FEE**

### **THREE WEEKS**

**ADD-ON PROGRAMME  
FOR THE STUDENTS  
of**

Department of Computer Science and Engineering

**ON**

**Data science**  
03-02-2020 to 25-02-2020  
(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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Website : [www.dvrkwomenscollege.com](http://www.dvrkwomenscollege.com)

Date:31-01-2020

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 "Data Science" from 03-02-20 to 25-02-20 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Dr.L.C.Manikandan, Program Coordinator on or before 02-02-20.

To

All the students of CSE (B.Tech)

Dr.L.C.Manikandan, Professor in CSE, Program coordinator

Copy to:

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

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

  
HOD  
CSE DEPARTMENT



HEAD OF THE DEPARTMENT  
COMPUTER SCIENCE & ENGINEERING  
DR. VRK WOMEN'S COLLEGE OF  
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Contact No. 7893044962 / 08413235962  
Website : www.dvrkwomenscollege.com

Date:25-01-2020

## Department of Computer Science and Engineering

### ADD-ON PROGRAM

#### ON

### Data Science (DASC04)

### Curriculum and Syllabus

03-02-20 to 25-02-2020

**Total Hours: 36 HRs**

#### PROGRAM OBJECTIVES:

- Learn concepts, techniques and tools they need to deal with various facets of data science practice, including data collection and integration
- Understand the basic types of data and basic statistics
- Identify the importance of data reduction and data visualization techniques

PROGRAM OUTCOMES: After completion of the course, the student should be able to

- Understand basic terms what statistical inference means
- Describe data using various statistical measures
- Perform data reduction and apply visualization techniques

This course introduces participants to Data science

Module :1 Introduction, Perspectives and statistical modelling,

Module :2 Data types and statistical description, Graphic Displays of Basic Statistical Description of Data ,Optimization Techniques, machine learning, Scientific computing.

Module: 3 Vectors Lists, Data analytics, Predictive analytics, Data Exploration.

Module: 4 **Exploratory Data Analysis:** Fundamentals of data exploration and analysis. It covers different techniques for cleaning and preprocessing data and methods for identifying patterns and correlations in datasets

Module: 5 Data Reduction and Data Visualization



  
**PROGRAM COORDINATOR**

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## **ABOUT ELECTRONICS AND COMMUNICATION ENGINEERING**

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Chairman-DR. V.R.K Educational  
Society

### **PATRON**

Dr.B.Sasi Kumar  
Principal

### **CONVENER**

Dr.SHAIK SAIDULU  
Professor & HOD ECE Dept.

### **CO-ORDINATOR**

Mrs.Shaheena Kamarani  
Associate Professor/ECE Dept.

**NO REGISTRATION FEE**

## **THREE WEEKS**

### **ADD-ON PROGRAMME FOR THE STUDENTS of**

Department of Electronics and Communication  
Engineering

**ON**

**Fundamentals of MATLAB**  
03-01-2020 to 28-01-2020  
(03:30PM to 05:30PM)



Organized by

Department of  
Electronics and Communication Engineering

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COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PGEET	VRKW

Date:27-12-19

Department of Electronics and Communication Engineering

### Circular

All the students of II&III Year-B.Tech (ECE) are informed that Department of Electronics and communication Engineering is proposed to conduct an **ADD-ON PROGRAM** on "**Fundamentals of MATLAB**" from 03-01-20 to 28-01-20 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Mrs.Shaheena Kamarani, Program Coordinator on or before 28-12-19.

#### To

All the students of ECE (B.Tech)

Mrs.Shaheena Kamarani, Associate Professor in ECE, Program coordinator

#### Copy to:

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



HOD  
ECE DEPARTMENT

HEAD OF THE DEPARTMENT  
ELECTRONICS & COMMUNICATIONS ENGINEERING  
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EAMCET	VRKW
ECET	VRKW
PGEET	VRKW

24-12-2019

### Department of Electronics and Communication Engineering

#### ADD-ON PROGRAM

#### ON

#### Fundamentals of MATLAB(ECE002)

#### Curriculum and Syllabus

03-01-20 to 28-01-2020

**Total Hours: 38 Hrs**

#### PROGRAMME OBJECTIVES:-

- The aim of this course is to introduce the elements and practicalities of computer programming through the MATLAB mathematical computing environment.

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

- After completing this course, the students will be able to use Matlab for analysis of circuits and systems.

#### Module :1.Overview of MATLAB

MATLAB Interactive Sessions - Menus and the Toolbar - Arrays, Files, and Plots - Script Files and the Editor/Debugger - The MATLAB Help System – Problem Solving Methodologies- One and Two Dimensional Numeric Arrays - Multidimensional Numeric Arrays, Element by Element Operations-Matrix Operations - Polynomial Operations Using Arrays- Cell Arrays - Structure Arrays

#### Module :2 Programming in MATLAB

Program Design and Development - Relational Operators and Logical Variables – Logical Operators and Functions -Conditional Statements - for Loops - while Loops - The switch Structure- Debugging MATLAB Programs - Applications to Simulation.

#### Module: 3 Functions

Elementary Mathematical Functions – User Defined Functions - Additional Function Topics - Working with Data Files- xy Plotting Functions - Additional Commands and Plot Types- Interactive Plotting in MATLAB – Three Dimensional Plots.



Module: 4 Animation and Sound in MATLAB

Creating Movies in MATLAB- Rotating 3D Surface- Animation with the Erase Mode Property-  
A Model of Sound-Creating Sound in MATLAB- Reading and Playing Sound Files.

Module: 5 Simulink

Introduction to Simulink - Linear State-Variable Models -Piecewise-Linear Models –  
Transfer Function Models- Nonlinear State-Variable Models – Subsystems- - Simulation  
of a Nonlinear system.



  
**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 ELECTRICAL AND ELECTRONICS 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.Prema Latha  
Professor & HOD EEE Dept.

#### **CO-ORDINATOR**

Mr.Syed Mudassir Zeeshan  
Asst Professor, EEE Dept

**NO REGISTRATION FEE**

#### **THREE WEEKS**

**ADD-ON PROGRAMME  
FOR THE STUDENTS  
of**

Department of Electrical and Electronics  
Engineering

**ON**

#### **ELECTRIC DRIVE SYSTEMS**

22-07-19 to 17-08-2019  
(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,

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.N.T.U, Hyderabad.

Aziznagar (V), Moinabad (M), R.R. Dist. 500 075 - T.S.  
Contact No. 7893044982 / 08413235962

COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PGEET	VRKW

Date:13-07-19

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 drive systems (EDS) "** from 22-07-19 to 17-08-19 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Mr.Syed Mudassir Zeeshan,Assistant Professor, Program Coordinator on or before 21-07-19.

#### To

All the students of EEE (B.Tech)  
Mr.Syed Mudassir Zeeshan  
Assistant Professor, in EEE, Program coordinator

#### Copy to:

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



  
HOD

EEE DEPARTMENT

H O D, - E.E.E.  
Dr. V.R.K. Women's College of Engg. & Tech  
Aziz Nagar, R. B. Dist.



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OF ENGINEERING & TECHNOLOGY**

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Contact No. 7893044962 / 08413235962

COUNSELLING CODE	
EAMCET	VRKW
ECET	VRKW
PGEET	VRKW

Date:12-07-2019

**Department of Electrical and Electronics Engineering**  
**ADD-ON PROGRAM**

**ON**  
**ELECTRIC DRIVE SYSTEMS (EEE002)**

**Curriculum and Syllabus**

22-07-2019 to 17-08-2019

40(HOURS)

**COURSE OBJECTIVES:**

1. Introduce fundamental principles and concepts of electric drive systems.
2. Explore the components of electric drive systems and their control principles.
3. Develop skills in analyzing and designing electric drive systems for various applications.
4. Familiarize students with emerging technologies in electric drive systems.
5. Provide an understanding of the latest advancements in the field.

**COURSE OUTCOMES:**

1. Demonstrate a comprehensive understanding of the fundamental principles governing electric drive systems.
2. Analyze and design control strategies for electric drive systems, considering diverse applications and scenarios.
3. Apply design techniques to meet specific performance and efficiency requirements in electric drive systems.
4. Stay abreast of the latest advancements in electric drive systems and their applications.
5. Develop skills to adapt to emerging technologies in the continuously evolving field of electric drive systems.

**Unit I: Introduction to Electric Drive Systems**

Overview of Electric Drive Systems, Types of Electric Motors, Basic Components and Configurations

**Unit II: Control Strategies in Electric Drive Systems**

Open-Loop and Closed-Loop Control, Speed and Torque Control, Vector Control Techniques

**Unit III: Analysis and Design of Electric Drive Systems**

Performance Analysis, Design Considerations, Efficiency and Power Factor Improvement

**Unit IV: Emerging Technologies in Electric Drive Systems**

Brushless DC Motors and Drives, Applications of Permanent Magnet Synchronous Motors, Integration of Electric Drives in Renewable Energy Systems.



*Neelam*  
PROGRAM COORDINATOR

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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**

Mr. Syed Shahed  
Assistant Professor H&S Dept.

**NO REGISTRATION FEE**

### **THREE WEEKS**

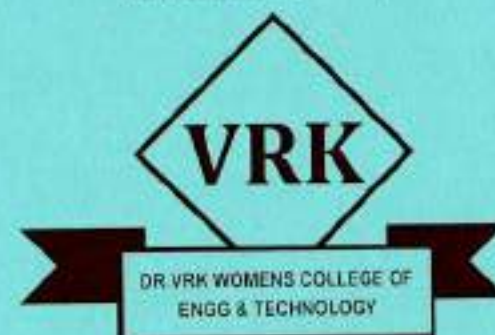
**ADD-ON PROGRAMME  
FOR THE STUDENTS  
OF**

Department of Humanities & Sciences

**ON**

**CAD and CAM**

01-11-2019 to 21-11-2019  
(03:30PM to 05:30PM)



Organized by

Department of  
Humanities & Sciences

**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
PGEET	VRKW

Date: 28-10-2019

### Department of Humanities and Sciences

### ACADEMIC YEAR (2019-2020)

### Circular

All the students of I Yr-B.Tech (CSE) are informed that Department of Humanities and Sciences is proposed to conduct an **ADD-ON PROGRAM** on **COMPUTER AIDED DESIGN AND COMPUTER AIDED MANUFACTURING** from 01-11-2019 to 21-11-2019 (Monday to Saturday - 3:30 PM to 5:30 PM). The interested students are informed to enroll their names to Mrs.Syed Shahed, Program Coordinator on or before 01-11-2019.

#### To

All the students of CSE (B.Tech)  
Mr. Syed Shahed,  
Assistant Professor in H&S,  
Program coordinator

#### Copy to:

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



HOD  
H&S DEPARTMENT

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



# Dr. VRK WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

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

COUNSELING CODE	
EAMCET	VRKW
ECET	VRKW
PGE CET	VRKW

Date:28-10-2019

**Department of Humanities & Science**  
**ADD-ON PROGRAM**  
**ON**  
**CAD/CAM)**  
**Curriculum and Syllabus**  
01-11-2019 to 25-11-2019

**Total Hours: 34 Hrs**

**PROGRAM OBJECTIVES:**

- The program aims to provide a comprehensive understanding of CAD tools and techniques, enabling students to create accurate and efficient digital representations of objects and systems.
- Machine Learning Engineering professionals use tools for continuous improvement and evaluation of deployed models
- Skill Development: To develop hands-on skills in using popular CAD software for 2D and 3D design, ensuring students can efficiently translate conceptual ideas into detailed, accurate digital models.
- Conceptual Understanding: To foster a deep understanding of design principles, geometric modeling, and visualization techniques, enabling students to think critically and creatively in the design process

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

CAM program, students should demonstrate the following outcomes:

1. **CAM Software Competency:** Proficiency in using CAM software to generate toolpaths, simulate machining processes, and optimize manufacturing workflows.
2. **Process Optimization Skills:** The ability to analyze and optimize manufacturing processes to enhance efficiency, reduce costs, and improve the overall quality of the manufactured product.
3. **Integration with CAD:** Seamless integration of CAM with CAD, enabling students to transition from design to manufacturing with ease.
4. **Quality Assurance:** Application of quality control principles to ensure that manufactured components meet specified design tolerances and adhere to industry standards.
5. **Automation Proficiency:** Competence in utilizing CAM software for automating repetitive tasks, improving production efficiency, and minimizing errors in the manufacturing process.

**Module: I UNIT – I**

Fundamentals of CAD, CAM, Automation , design process, Application of computers for design, Benefits of CAD, Computer configuration for CAD applications, Computer peripherals for CAD, Design workstation, Graphic terminal, CAD software- definition of system software and application software ,CAD database and structure.

**Geometric Modeling:** 3-D wire frame modeling, wire frame entities and their definitions, Interpolation and approximation of curves, Concept of parametric and non-parametric

representation of curves, Curve fitting techniques, definitions of cubic spline, Bezier, and B spline

Module:2 **NC Control Production Systems:** Numerical control, Elements of NC system, NC part

programming: Methods of NC part programming, manual part programming, Computer assisted part programming, Post Processor, Computerized part program, SPPL (A Simple Programming Language), CNC, DNC and Adaptive Control Systems,

Module: Part families, Parts classification and coding. Production flow analysis, Machine cell design. R16 B.TECH MECHANICAL ENGG.

**Computer aided process planning:** Difficulties in traditional process planning, Computer aided process planning: retrieval type and generative type, Machinability data systems.

**Computer aided manufacturing resource planning:** Material resource planning, inputs to MRP, MRP output records, Benefits of MRP, Enterprise resource planning, Capacity requirements planning

Module: 4 **Computer aided quality control:** Automated inspection- Off-line, On-line, contact, Non-contact; Coordinate measuring machines, Machine vision.

**Computer Integrated Manufacturing:** CIM system, Benefits of CIM



*Shahed*  
**PROGRAM COORDINATOR**