

**Hindustan College of Science & Technology, Farah, Mathura**  
**Department of Electrical and Electronics Engineering**

HCST/EE/ 2021/ ODD

Date: 04/09/2021

**NOTICE**

All the students are hereby informed that the department of Electrical and Electronics Engineering is going to organize a training course in "**BASIC MATLAB PROGRAMMING**" (30 hrs. teaching+ practice session) in the department from 18-09-2021.

Registration will be open from **10 September, 2021 to 17 September, 2021**. Please insure that you complete your registration within this time frame.

For any further any inquiries or clarifications regarding registration, kindly reach out Mr. Sunil Pathak, Office Staff, department of EEE.

*Sanjeev*  
Dr Sanjeev Kumar  
Course Coordinator

Mrs. Richa Kapoor  
HOD, EEE Deptt.  
*Richa Kapoor*  
Head  
Dept. of Electrical & Electronics Engg.  
Hindustan College of Science & Technology  
Farah, Mathura

*Abhishek*  
Director  
Hindustan College of  
Science & Technology/  
FARAH (MATHURA)



HINDUSTAN COLLEGE OF SCIENCE & TECHNOLOGY,  
FARAH -MATHURA

DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING



*Value Added Course*  
**VEE2101 – BASIC MATLAB PROGRAMMING**

**18<sup>th</sup> SEP '2021 – 5<sup>th</sup> FEB 2022 - Every Saturday: 3:00 PM – 5:00 PM**

**Students From Any Branch Can Join the Course**



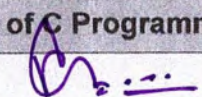
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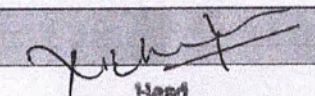
*Dr. Sanjeev Kumar*  
*Assistant Professor, Electrical & Electronics Engineering*  
*Research Interest: Power System*

Registration Dates  
10<sup>th</sup> Sept 2021 – 17<sup>th</sup> Sept 2021  
For Registration: Please contact  
Mr. Sunil Pathak, Office Staff, Department of EEE

Prerequisites: Basics of C Programming

Sanjeev

  
Director  
Hindustan College of  
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FARAH (MATHURA)

  
Head  
Dept. of Electrical & Electronics Engg.  
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HINDUSTAN COLLEGE OF SCIENCE & TECHNOLOGY,  
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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

*Value Added Course*  
**VEE2101 – BASIC MATLAB PROGRAMMING**

**18<sup>th</sup> '2021 – 5<sup>th</sup> FEB 2022 - Every Saturday: 3:00 PM – 5:00 PM**

**Course Objectives**

The main objective of this value added course are as follows:

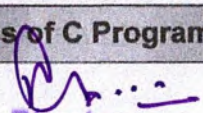
1. Familiarize students with the MATLAB software, its user interface, and basic functionality.
2. Introduce the syntax and basic concepts of the MATLAB programming language, such as variables, data types, operators, and control structures.
3. Teach students how to perform mathematical operations using MATLAB, including arithmetic, matrix manipulation, and vectorization. Introduce built-in mathematical functions and how to create custom functions.
4. Cover techniques for reading data from files and writing data to files using MATLAB.
5. MATLAB's plotting capabilities and teach students how to create various types of plots, customize their appearance, and annotate them.

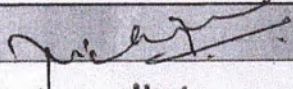
**Course Syllabus**

Units	Details	Course Out comes
1	Introduction to MATLAB : Introduction to MATLAB environment, Variables, data types, and basic operations, Input and output functions, MATLAB scripts and functions, Debugging and error handling	CO1
2	MATLAB Programming Fundamentals : Control flow statements (if-else, for loops, while loops), Vectorization and array operations, Functions and function handles, File input/output, MATLAB programming best practices	CO2
3	Data Visualization and Plotting : Plotting functions and basic plot customization, Multiple plots and subplots, 2D and 3D plots, Interactive visualization tools, Exporting figures and graphics	CO3
4	Advanced MATLAB Programming : Object-oriented programming in MATLAB, MATLAB structures and cell arrays, Handle graphics and GUI development, MATLAB toolboxes and libraries, Optimization and numerical methods	CO4
5	Applications and Projects : Introduction to application domains (e.g., signal processing, image processing, data analysis), Case studies and real-world examples, Mini projects and assignments related to specific application areas. Final project: Design and implement a MATLAB program to solve a real-world problem	CO5

**Prerequisites: Basics of C Programming**

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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

*Value Added Course*  
**VEE2101 – BASIC MATLAB PROGRAMMING**

**18<sup>th</sup> Sept '2021 – 5<sup>th</sup> FEB 2022 - Every Saturday: 3:00 PM – 5:00 PM**

**Course Outcomes**

- CO1** Students should become familiar with the MATLAB programming environment, including the MATLAB desktop, command window, editor, debugger, syntax of MATLAB programming language and understand basic operations such as arithmetic, logical, and relational operations.
- CO2** Students should be able to create and manipulate variables, including scalar values, vectors, matrices, cell arrays, use control flow statements such as if-else statements, loops (for, while), and switch-case statements to control the flow of program execution.
- CO3** Students should be able to create and use MATLAB functions and scripts to modularize code, improve code reusability, create basic plots and visualizations using MATLAB's plotting functions, including 2D and 3D plots.
- CO4** Students should understand how to read data from files, write data to files using MATLAB's file input/output functions, perform basic data analysis tasks using MATLAB, such as computing statistics, fitting curves, and analyzing data sets.
- CO5** Students should gain proficiency in debugging MATLAB code and handling errors by using built-in debugging tools, implementing error handling mechanisms, problem-solving skills by applying MATLAB programming techniques to solve computational problems in various domains, such as engineering, mathematics, and science.

**CO-PO & CO-PSO Mappings**

COs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2
CO1	3	3	3		3						1	1	2	3
CO2	3	3	3	2	3						1	1	3	2
CO3	3	3	3	2	3						2	2	3	3
CO4	3	3	3	3	3	2	2				2	2	3	3
CO5	3	3	3	3	3	2	2				2	2	3	3
Average	3	3	3	2.5	3	2	2				1.6	1.6	2.8	2.8

**Evaluation Criteria: 1. Evaluation of Practical assignments, Group project, Viva/Quiz**

Sanjeev

Director

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DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING



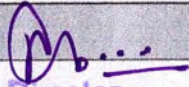
*Value Added Course*  
**VEE2101 – BASIC MATLAB PROGRAMMING**

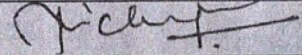
**18<sup>th</sup> Sept '2021 – 5<sup>th</sup> FEB 2022- Every Saturday: 3:00 PM – 5:00 PM**

**Program Schedule**

Session	Date	Time	No of Hours	Session Topic	Resource Person
1	18/09/21	3:00 PM - 5:00 PM	2	Introduction to MATLAB	Dr. Sanjeev Kumar
2	25/09/21	3:00 PM - 5:00 PM	2	MATLAB Basics	Dr. Sanjeev Kumar
3	09/10/21	3:00 PM - 5:00 PM	2	MATLAB Functions	Dr. Sanjeev Kumar
4	23/10/21	3:00 PM - 5:00 PM	2	MATLAB Programming Techniques	Dr. Sanjeev Kumar
5	30/10/21	3:00 PM - 5:00 PM	2	File I/O in MATLAB	Dr. Sanjeev Kumar
6	13/11/21	3:00 PM - 5:00 PM	2	Plotting in MATLAB	Dr. Sanjeev Kumar
7	20/11/21	3:00 PM - 5:00 PM	2	Advanced Plotting	Dr. Sanjeev Kumar
8	4/12/21	3:00 PM - 5:00 PM	2	MATLAB Toolboxes	Dr. Sanjeev Kumar
9	11/12/21	3:00 PM - 5:00 PM	2	Symbolic Math in MATLAB	Dr. Sanjeev Kumar
10	18/12/21	3:00 PM - 5:00 PM	2	Advanced Programming Concepts	Dr. Sanjeev Kumar
11	05/01/22	3:00 PM - 5:00 PM	2	Numerical Computing in MATLAB	Dr. Sanjeev Kumar
12	15/01/22	3:00 PM - 5:00 PM	2	Image Processing in MATLAB	Dr. Sanjeev Kumar
13	22/01/22	3:00 PM - 5:00 PM	2	Signal Processing in MATLAB	Dr. Sanjeev Kumar
14	29/01/22	3:00 PM - 5:00 PM	2	Final Project	Dr. Sanjeev Kumar
15	05/02/22	3:00 PM - 5:00 PM	2	MATLAB Tools	Dr. Sanjeev Kumar
Total Number of Hours covered			30		

Sanjeev

  
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# Hindustan College of Science and Technology - Mathura

## Electrical and Electronics Department

### CLASS TIME TABLE FOR ODD SEMESTER 2021-22

SESSION: 2021-22      W.E.F : 5/9/2021      CLASS TEACHER: Mr. Vineet Kumar  
 YEAR/SEM-SEC: 2nd Year/ 3rd Sem      ROOM.NO : 108      COUNSELLORS : Mr. Avnish Singh

Time / Day	I	II	III	IV	V	VI	VII	VIII
	10:10 TO 11:00	11:00 TO 11:50	11:50 TO 12:40	12:40 TO 01:30	01:30 TO 02:20	02:20 TO 03:00	03:00 TO 04:00	04:00 TO 05:00
MONDAY	EMFT HP 108	MATHS-IV MP 108	CSC AB 108	TC KD 108	LUNCH	PDP		BSS AvS 108
TUESDAY	EMFT HP 108	MATHS-IV MP 108	EMI VK 108	BSS AvS 108		TC KD 108	EMI Lab RK 106	
WEDNESDAY	EMI VK 108	Analog Electronics Lab ML 302		TC KD 108		MATHS-IV MP 108	CSC AB 108	LIB
THURSDAY	EMI VK 108	EMFT HP 109	MATHS-IV MP 108	CSC AB 108		TC (T) KD 108	BSS AvS 108	LIB
FRIDAY	BSS AvS 108	PDP		EMFT (T) HP 109		EMI VK 108	EW Lab AS 101	
SATURDAY	MATHS-IV MP 108	EMFT HP 108	Mini Project Lab SK 101			EMI VK 109	Value Added Course Dr. Sanjeev Kumar 101	
Name of the Subject			Subject Code	Name of the Faculty		Total No. of Lect./Tut./Practical		
						Lect.	Tut.	Pract.
Technical Communication			KAS301	Dr. Keshav Dev		3	1	0
Maths-IV			KAS302	Dr. M.P. Singh		4	1	0
Electromagnetic Field Theory (EMFT)			KEE301	Mr. Himanshu Prakash Rajput		4	1	0
Electrical Measurements & Instrumentation			KEE302	Mr. Vineet Kumar		4	1	0
Basic Signals & Systems (BSS)			KEE303	Mr. Avnish Singh		4	0	0
Computer System Security			KNC301	Mr. Atul Barsaiyan		3	0	0
Analog Electronics Lab (AE)			KEE351	Mr. Mukund Lal				2
Electrical Measurements & Instrumentation Lab			KEE352	Dr. Richa Kapoor				2
Electrical Workshop Lab (EW)			KEE353	Mr. Avnish Singh				2
Mini Project (MP)			KEE354	Dr. Sanjeev Kumar				2
Value Added Course			VEE 2101	Dr. Sanjeev Kumar				2
PDP				T & D Deptt.				4

*Avnish*  
Time Table Incharge

Dr. Richa Kapoor  
HOD, EE

*Director*  
**Director**  
Hindustan College of  
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FARAH (MATHURA)

*Head*  
**Head**  
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**Hindustan College of Science and Technology - Mathura**  
**Electrical and Electronics Department**  
**CLASS TIME TABLE FOR ODD SEMESTER 2021-22**

SESSION: 2021-22

W.E.F : 5/9/21

CLASS TEACHER: Mr. Avnish Singh

YEAR/SEM-SEC: 3rd Year/ 5th Sem

ROOM.NO : 107

COUNSELLORS : DR. Sanjeev Kumar

Time / Day	I	II	III	IV	V	VI	VII	VIII
	10:10 TO 11:00	11:00 TO 11:50	11:50 TO 12:40	12:40 TO 01:30	01:30 TO 02:20	02:20 TO 03:00	03:00 TO 04:00	04:00 TO 05:00
MONDAY	EM-II RK 107	PS-I SK 107	CS AS 107	S & T VK 107	<b>LUNCH</b>	Mini Project AS 106		LIB
TUESDAY	PS-I SK 107	PDP		ADC VK 107		Const. of India SS 108	CS LAB AS 111	
WEDNESDAY	EM-II RK 107	CS AS 107	S & T VK 107	ADC VK 107		EM-II LAB RK 109		Const. of India SS 108
THURSDAY	CS AS 107	ADC VK 107	EM-II RK 107	PS-I SK 107		PS-I LAB SK 110		COUN
FRIDAY	ADC VK 107	CS AS 107	EM-II (T) RK 107	S & T VK 107		PDP		Const. of India SS 108
SATURDAY	PS-I SK 107	CS (T) AS 107	S & T VK 107	EM-II RK 107		PS-I (T) SK 107	Value Added Course Dr. Sanjeev Kumar 101	

Name of the Subject	Subject Code	Name of the Faculty	Total No. of Lect./Tut./Practical		
			Lect.	Tut.	Pract.
Power System I	KEE-501	Dr. Sanjeev Kumar (SK)	4	1	0
Control System (CS)	KEE-502	Mr. Avnish Singh (AS)	4	1	0
Electrical Machines - II (EM-II)	KEE-503	Dr. Richa Kapoor (RK)	4	1	0
Sensors & Transducers	KEE-052	Mr. Vineet Kumar (VK)	4	0	0
Analog & Digital Communication	KEE-058	Mr. Vineet Kumar (VK)	4	0	0
Constitution of India, Law and Engineering	KNC-501	Mr. Shashi Shekhar	3	0	0
Power System I lab	KEE-551	Dr. Sanjeev Kumar (SK)			2
Control System Lab (CS Lab)	KEE-552	Mr. Avnish Singh (AS)			2
Electrical Machines - II Lab (EM-II Lab)	KEE-553	Dr. Richa Kapoor (RK)			2
Mini Project	KEN-554	Mr. Avnish Singh (AS)			2
Value Added Course	VEE 2101	Dr. Sanjeev Kumar			2
PDP		T & D Deptt.			4

*Avnish*  
Time Table Incharge

*Dr. Sanjeev Kumar*  
Director

*Richa Kapoor*  
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Hindustan College of  
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Hindustan College of Science & Technology					
Department of Electrical & Electronics Engineering					
Value Added Course - Registration Form					
Course Name: Basic MATLAB Programming Course Code: VEE2101					
Session 2021-22			From August 2021 to December 2021		
Sr. No.	Roll No.	Name	Dept	Sem	Signature of Student
1	2000640210001	Amit Gahan	EEE	III	<i>Amit</i>
2	2000640210002	Kunal Joshi	EEE	III	<i>Kunal</i>
3	2000640210003	Ritik Kumar	EEE	III	<i>Ritik</i>
4	2000640210004	Sachin Singh	EEE	III	<i>Sachin</i>
5	2100640219002	Lakshya Bhardwaj	EEE	III	<i>Lakshya</i>
6	2100640219003	Rishabh Kumar	EEE	III	<i>Ri</i>
7	2100640219001	Aman Singh Sikarwar	EEE	III	<i>Aman</i>
8	1900640210001	Atul Kumar	EEE	V	<i>Atul</i>
9	1900640210002	Hrithik Sharma	EEE	V	<i>Hrithik</i>
10	1900640210004	Mohit Kushwah	EEE	V	<i>Mohit</i>
11	1900640210005	Nipun Raj	EEE	V	<i>Nipun</i>
12	1900640210006	Nishant Kumar	EEE	V	<i>Nishant</i>
13	1900640210007	Rishabh Yadav	EEE	V	<i>Ri</i>
14	1900640210008	Sahil Raj	EEE	V	<i>Sahil</i>
15	2000640219001	Lavlesh Kumar	EEE	V	<i>Lavlesh</i>
16	2000640219002	Utkarsh Kumar	EEE	V	<i>Utkarsh</i>

*Nishant*

Head of Department  
Electrical & Electronics Engineering  
Hindustan College of Science & Technology  
Farah, Mathura

*Lanka*

*Ab...*

Director  
Hindustan College of  
Science & Technology  
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# Hindustan College of Science & Technology

Department of Electrical & Electronics Engineering

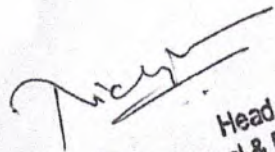
Value Added Course - Attendance Sheet

**Course Name: Basic MATLAB Programming      Course Code: VEE2101**

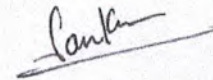
Session 2021-22 (Year 2021)

Session wise Attendance Sheet

S. No.	Roll No.	Name	SEM	Signature of the Student																	
				1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
				18/9	25/9	9/10	23/10	30/10	13/11	20/11	4/12	11/12	18/12	8/01	15/01	22/01	29/01	29/01	05/02	05/02	
1	2000640210001	Amit Gahan	III	Amit	Amit	Amit	(A)	Amit	Amit	Amit	Amit	Amit	Amit	(A)	Amit	Amit	Amit	Amit	(A)	Amit	
2	2000640210002	Kunal Joshi	III	A	Kunal	Kunal	Kunal	Kunal	Kunal	A	Kunal	Kunal	Kunal	A	Kunal	Kunal	Kunal	Kunal	Kunal	A	
3	2000640210003	Ritik Kumar	III	Ritik	Ritik	Ritik	(A)	(A)	Ritik	(A)	Ritik	Ritik	(A)	Ritik	(A)	(A)	Ritik	(A)	(A)	Ritik	
4	2000640210004	Sachin Singh	III	S	(A)	S	S	(A)	S	S	S	S	S	S	(A)	S	S	(A)	S		
5	2100640219002	Lakshya Bhardwaj	III	Lakshya	(A)	Lakshya	Lakshya	(A)	Lakshya	Lakshya	Lakshya	Lakshya	(A)	Lakshya	Lakshya	Lakshya	Lakshya	(A)	Lakshya	(A)	
6	2100640219003	Rishabh Kumar	III	Rishabh	Rishabh	(A)	Rishabh	Rishabh	Rishabh	Rishabh	(A)	Rishabh	Rishabh	Rishabh	Rishabh	Rishabh	Rishabh	Rishabh	(A)	Rishabh	
7	2100640219001	Aman Singh Sikarwa	III	Aman	A	Aman	Aman	Aman	Aman	A	Aman	Aman	Aman	Aman	A	Aman	Aman	Aman	Aman	A	
8	1900640210001	Atul Kumar	V	Atul	Atul	(A)	Atul	Atul	Atul	Atul	(A)	Atul	Atul	Atul	Atul	Atul	Atul	(A)	Atul	Atul	
9	1900640210002	Hrithik Sharma	V	Hrithik	Hrithik	(A)	Hrithik	Hrithik	Hrithik	Hrithik	Hrithik	Hrithik	Hrithik	(A)	Hrithik	Hrithik	Hrithik	Hrithik	Hrithik	(A)	
10	1900640210004	Mohit Kushwah	V	Mohit	(A)	Mohit	Mohit	Mohit	Mohit	Mohit	(A)	Mohit	Mohit	Mohit	Mohit	Mohit	Mohit	(A)	Mohit	Mohit	
11	1900640210005	Nipun Raj	V	Nipun	Nipun	Nipun	Nipun	Nipun	Nipun	Nipun	(A)	Nipun	Nipun	Nipun	Nipun	Nipun	Nipun	Nipun	Nipun	(A)	
12	1900640210006	Nishant Kumar	V	Nishant	(A)	Nishant	Nishant	Nishant	Nishant	Nishant	Nishant	(A)	Nishant	Nishant	Nishant	Nishant	(A)	Nishant	Nishant	(A)	
13	1900640210007	Rishabh Yadav	V	(A)	Ri	Ri	Ri	Ri	Ri	Ri	(A)	Ri	Ri	(A)	Ri	Ri	(A)	Ri	Ri	(A)	Ri
14	1900640210008	Sahil Raj	V	Sahil	Sahil	Sahil	Sahil	Sahil	Sahil	Sahil	Sahil	A	Sahil	Sahil	Sahil	Sahil	Sahil	Sahil	Sahil	Sahil	
15	2000640219001	Lavlesh Kumar	V	A	Lav	Lav	Lav	Lav	Lav	A	Lav	Lav	Lav	A	Lav	Lav	Lav	Lav	Lav	A	
16	2000640219002	Utkarsh Kumar	V	Utkarsh	(A)	Utkarsh	Utkarsh	Utkarsh	Utkarsh	Utkarsh	(A)	Utkarsh	Utkarsh	Utkarsh	(A)	Utkarsh	Utkarsh	Utkarsh	Utkarsh	(A)	

  
 Head of Department  
 Electrical & Electronics Engineering  
 Hindustan College of Science & Technology  
 Farah, Mathura

  
 Director  
 Hindustan College of  
 Science & Technology  
 FARAH (MATHURA)

  
 (Dr. Sangeet Kumar)



Department of Electrical & Electronics Engineering

# Certificate

## OF COMPLETION

This is to certify that

**Kunal Joshi**

Session – 2021- 22

Department of Electrical and Electronics  
Engineering has successfully completed 30 hours of Value Added Course (VEE 2101)  
titled

Roll No.- 2000640210002

**"BASIC MATLAB PROGRAMMING"**

Dr. R. K. Upadhyay  
Director

Dr. Sanjeev Kumar  
Coordinator

Dr. Richa Kapoor  
HOD -EEE

Hindustan College of Science and Technology, Farah, Mathura

Director  
Hindustan College of  
Science & Technology



Department of Electrical & Electronics Engineering

# Certificate

OF COMPLETION

This is to certify that

## Amit Gahan

Session – 2021- 22

Department of Electrical and Electronics  
Engineering has successfully completed 30 hours of Value Added Course (VEE 2101)  
titled

Roll No.- 2000640210001

**"BASIC MATLAB PROGRAMMING"**

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Director

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Coordinator

Dr. Richa Kapoor  
HOD -EEE

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Director  
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