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GURU NANAK INSTITUTE
OF ENGINEERING & TECHNOLOGY
APPROVED BY AICTE, DTE & AFFILIATED TO RTM NAGPUR UNIVERSITY, NAGPUR
Dahegaon, Opp IOC Petrol pump, Kalmeshwar Road, Nagpur- 441501 Ph. 07118-661400
Website: www.gniet.ac.in E-mail: gnietnagpur@gmail.com

NAAC ACCREDITED

Add-on Course

ARM Processor architecture and Programming

Organized By: Department of Computer Science and Engineering

(2022-2023)

Dates from: 16-08-2022 to 21-08-2022

(06 Days, 05 Hrs per day, total 30 Hrs.)

(Timing: 10:00 am to 1:00 pm & 2:30 pm to 4:30 pm)

Sr.No	Course Coordinator	Resource person
1	Prof. Shubhangi Ghadinkar Assistant Professor Department of CSE, GNIET, Nagpur	Dr. Balram Timande Associate Professor, TGPCET, Nagpur 9179985939 Email: balram.ece@tgpcet.com

Participants

Students of 5th & 7th Semester

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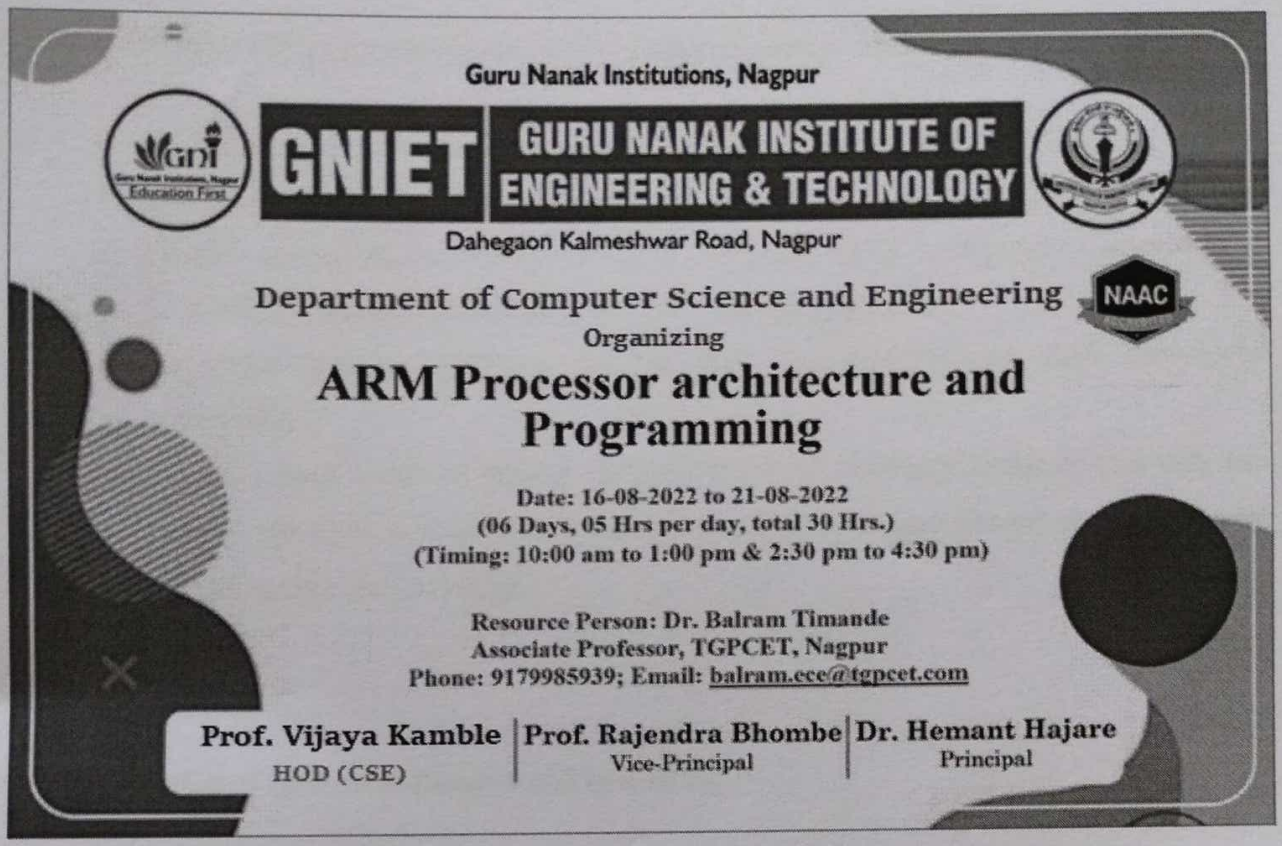

Brief Report On

Add-on Course: ARM Processor architecture and Programming.

The one week Add-on course on **ARM Processor architecture and Programming,** was organized by **Department of Computer Science and Engineering** for Students of B. Tech. 5th (CBCS) and B.E.7th (CBS) CSE. The Add-on course was organized for the period of 30 hours starting from date: **16-08-2022 to 21-08-2022.** Timing for the classes and Hands on was 10:00 am to 1:00 pm & 2:30 pm to 4:30 pm. 05 hours per day (Total Course hours = 30 Hrs). The Add-on course was fully free of cost. Total 78 students have participated and completed Add-on course successfully. The resource person for the course was **Dr. Balram Timande,** balram.ece@tgpcet.com , **9179985939**

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Dahegaon, Kalmeshwar Road, Nagpur-441 501
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Department of Computer Science & Engineering

GNIET/CSE/23-24/ Date: 08/08/2022

-:Notice:-

As per the guidelines of higher authorities and IQAC cell, Department of Computer Science and Engineering is organizing 30 hrs. (One week) add-on course **" ARM processor architecture and Programming"** from date **16-08-2022 to 21-08-2022.** Timing for the classes and Hands on will be 10:00 am to 1:00 pm & 2:30 pm to 4:30 pm. (05 hours per day; total hours = 30 Hrs). All the students of 5th and 7th semesters having a good attendance record in current as well as previous semester are eligible to participate. All the interested students are requested to register their names to Department Head before date of commencement of course. The Add-on course is fully free of cost

HOD (CSE)
Head of Department
Computer Science & Engineering
GNIET, Dahegaon, Nagpur

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3. Vice-Principal GNIET
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Course Objective and Outcomes:

Course Objectives The main objective of the Add-on courses was

1. To impart additional knowledge about new technologies either partially or fully so that students become skilled and employable.
2. To offer conceptual knowledge of 32-bit Processor, ARM Architecture CortexM0.
3. To make the students skilled in RISC processor programming.
4. To make students confident so that they can communicate their knowledge effectively.
5. To make them aware of ethical , societal and environmental issues so that they can provide solutions to fulfill needs of society and have posive impact on environment as well as take care of ethics.

Course Outcomes:

After completion of the course students will be able to;

CO-1 Explain the needs of new technology for the growth of society as well as Nation.

CO-2 Discuss and Illustrate concepts of 32 bit RISC processor. And able to explain internal architecture of ARM processor.

CO-3 Analyze the data acquired from the surrounding with the help of programming.

CO-4 Communicate their knowledge with peoples who directly or indirectly connected with the solution they provide.

CO-5 Design or create the solution that will be useful for the society with taking care of environmental and ethical issues.

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Course Mapping with POs and PSOs:

PO & PSO->	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO-1	2	2	1	1	0	1	1	0	2	3	0	2	2	2
CO-2	2	3	2	3	0	1	0	0	2	2	0	2	3	2
CO-3	2	3	2	3	3	1	0	0	3	2	0	2	3	2
CO-4	2	1	3	3	0	3	3	3	2	3	3	2	2	3
CO-5	2	2	3	2	3	3	3	3	3	3	3	2	2	3
Avg POs	2	2.2	2.2	2.4	1.2	1.8	1.4	1.2	2.4	2.6	1.2	2	2.4	2.4
% PO/PSO attainment	66.7 %	73.3 %	73.3 %	80.0 %	40.0 %	60.0 %	46.7 %	40.0%	80.0%	86.7%	40.0%	66.7%	80.0%	80.0%

PO-1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO-2	**Problem analysis**	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO-3	**Design/ development of solutions**	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO-4	**Conduct investigations of complex problems**	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO-5	**Modern tool usage**	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

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PO-6	The engineer and society	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO-7	Environment and sustainability	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO-8	Ethics	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO-9	Individual and teamwork	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO-10	Communication	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO-11	Project management and finance	Demonstrateknowledgeandunderstandingoftheengineeringandmanagement principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO-12	Life-long learning	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

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Course content:

1) **Introduction to 32 bit Microcontroller**
- Importance of 32-bit Microcontrollers
- Introduction to ARM
- Difference between ARM & MIPS
- Brief description of ARM Family Microcontrollers
- Introduction to ARM Cortex M Series

2) **Architecture of STM32F0XXX**
- Pin Diagram
- Memory Organization
- SFRs description
- Program Counter
- Accumulator (or Working Register)
- Reset
- Clock Cycle, Machine Cycle, Instructio Cycle
- Interrupts
- SFRs & GPRs
- Stack, Stack Pointer, Stack Operation
- General Purpose Input-Output PORTs
- Timers
- Analog to Digital Convertors
- USART
- EEPROM
- Device Protection features – Watchdog Timer, BOR, Power up Timer

3) **KEIL V3**
- Introduction to Keil IDE
- Making Project on Keil IDE
- Compiling a Sample Program to Understand Process

4) **Embedded C Programming of GPIO of STM32Fxxx Controller**
- LED Interfacing with Microcontroller
- LED Patterns programming
- Interfacing of Switches with Microcontroller
- Switches Programming
- Interfacing of SSD with Microcontroller
- Programming concept of SSD

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- Different SSD Programs
- Interfacing of Character LCD with Microcontroller
- Description of Character LCD Commands
- Programming Concept of Character LCD
- Practice of Character LCD Programs
- Introduction to STM32Fxxx internal ADC and its SFRs
- Programming Concept of ADC
- Practice of Different ADC Programs
- Programming Concept of DAC
- Practice of Different DAC Programs
- Introduction to UART and its SFRs
- Programming concept of Serial Transmitter & Receiver using UART
- Practice of UART Programs
- Description to NVIC Interrupt Logic Diagram of STM32Fxxx
- Introduction to SFRs related to Interrupts
- Programming Concept of Interrupts
- Practice of Interrupt Programs

Daily Schedule:

From Date: 16-08-2022 to 21-08-2022

Day-1: Introduction to embedded systems and microcontrollers Instruction set architecture of ARM microcontroller, and assembly language programming.

Day-2: D/A and A/D converter, sensors, actuators and their interfacing and programming.

Day-3: Microcontroller development boards and embedded programming platforms

Hands-on and demonstration: Temperature sensing unit, Light sensing unit, Sound sensing unit

Day-4: Hands-on and demonstration II: Feedback control system, relay control unit, driving electrical appliances like motors, bulb, pump, etc.

Day-5: Hands-on and demonstration III: Object tracking using GPS and GSM

Day-6: Hands-on and demonstration IV: Introduction to Internet of Things, smart home concepts, motion sensing using accelerometer, control of appliances over SMS

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Glimpses:

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Feedback on Certificate course

Dear participants,

We shall very much appreciate you if you fill up this feedback form. It will help us to improve the Institute further and give better engineers in future for the growth of the nation. Tick the number that best describes your level of satisfaction at each question: 1 - Poor , 2 - average , 3 - Good, 4 - Very Good, 5 - Excellent .

Course Coordinators

Prof. Shubhangi Ghadinkar
Assistant Professor
Department of CSE, GNIET, Nagpur

* Required

1. **What is your Branch? ***
Mark only one oval.
- CSE
- Other

2. **Name of Certificate Course ***

_____

3. **Has the teacher covered full Syllabus prescribed in Certificate Course? ***
Mark only one oval.
- YES
- No

4. **Are you satisfied with the content? ***
Mark only one oval.
- YES
- No

5. **How do you rate technical Content in syllabus?(5-Excellent, 4-Very Good, 3-Good, 2- Average, 1-Bellow Average): ***
Mark only one oval.

1	2	3	4	5
○	○	○	○	○

6. **How do you rate technical knowledge of Teacher? ***
Mark only one oval.

1	2	3	4	5
○	○	○	○	○

https://docs.google.com/forms/d/1d2GiB_8WtmiQs3q8M_FE-lqsv_qZiJz_vLufkFichZI/edit

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7. How do you rate cooperation from teacher to Solve Individual doubts? *
Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

8. How do you rate Practical Session? *
Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

9. How do you rate Internet Facility? *
Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

10. How do you rate Library Facility? *
Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

11. How do you rate on overall effectiveness of certificate course? *
Mark only one oval.

1	2	3	4	5
◯	◯	◯	◯	◯

12. Suggestions if any.

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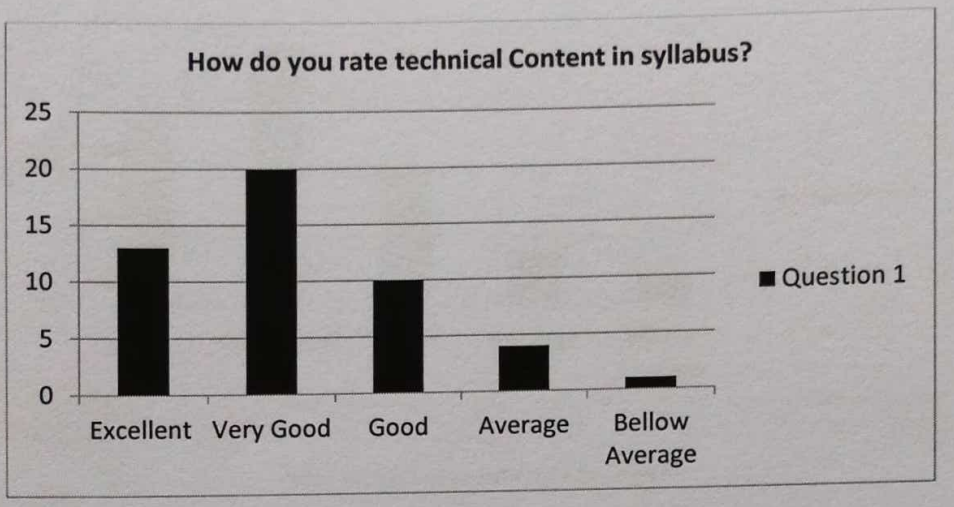
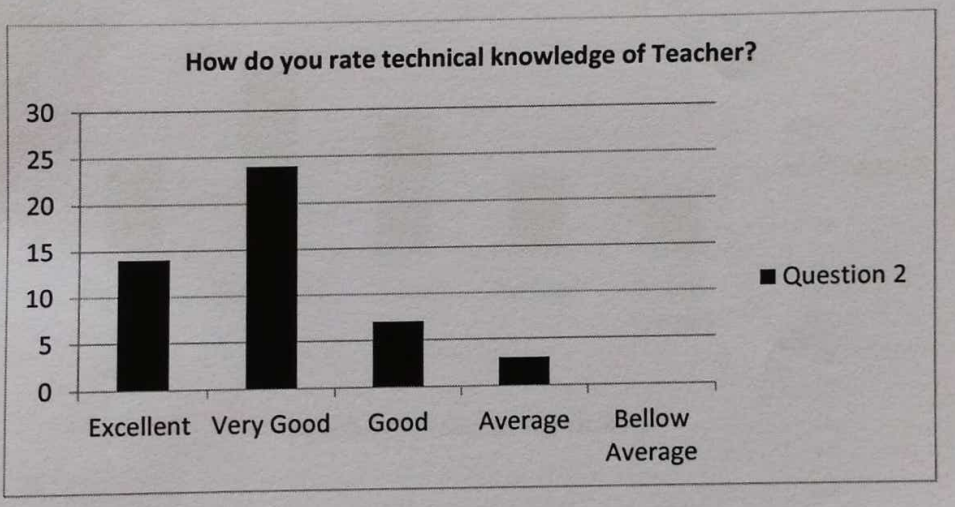
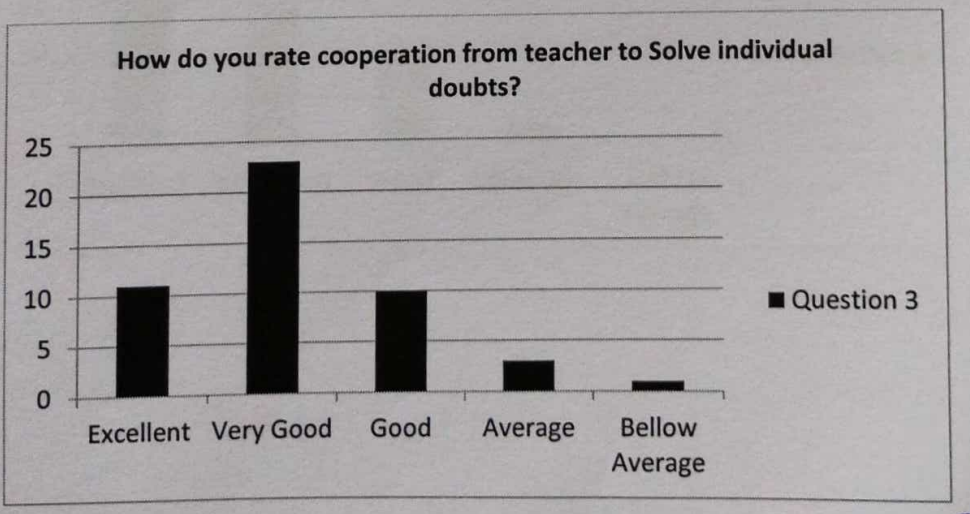
Feedback taken using Google form and analysis done on rating given







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MCQ TEST ON

ARM Processor architecture and Programming

Question Paper

Note: Attempt all 30 Questions. Each Question carry 01 Mark (MAX 30 Marks). Max Time – 01 Hr. Tick the correct answer. No negative marking.

1). What is the standard form of ARM?

- (•) Advanced RISC Machine
- ( ) Automatic RISC Machine
- ( ) Automatic RISC Motor
- ( ) None of the above

2). How many instruction sets does ARM have?

- ( ) One
- ( ) Two
- ( ) Three
- ( ) Four

3). How many registers does ARM have?

- ( ) Four
- ( ) Eight
- ( ) Sixteen
- ( ) Thirty-seven

4). How many operating modes does ARM have?

- ( ) Four
- ( ) Seven
- ( ) Sixteen
- ( ) Thirty-seven

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5). When the processor is executing in ARM state, then all instructions are _____ wide

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Report

on

Add-on Course

Microcontroller MCS-51 architecture and Programming

Organized By: Department of Computer Science and Engineering

(2022-2023)

Dates from: 27-02-2023 to 04-03-2023

(06 Days, 05 Hrs per day, total 30 Hrs.)

(Timing: 10:00 am to 1:00 pm & 2:30 pm to 4:30 pm)

Sr.No	Course Coordinator	Resource person
1	Prof. Shubhangi Ghadinkar Assistant Professor Department of CSE, GNIET, Nagpur	Dr. Balram Timande Associate Professor, Department of ETE, GNIET, Nagpur. Ph. 9179985939 Email: balramtimande@gmail.com

Report Prepared by:

Prof. Shubhangi Ghadinkar

Submitted to

IQAC, GNIET, NAGPUR

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Department of Computer Science and Engineering

Date: 20-02-2023

-: Notice:-

For the skill development and quality engineering education Internal Quality Assurance Cell (IQAC) have suggested to organize Add-on courses based on new technologies for minimum of 30Hrs. With this reference, Department of Computer Science and Engineering has decided to organize 30 hrs Add-on course on: ***"Microcontroller MCS-51 architecture and Programming."*** from date 27-02-2023 to 04-03-2023. The Add-on course is free of cost for the students of CSE departments.

Resource person details:
Dr. Balram Timande
Associate Professor, Department of ETE, GNIET, Nagpur
Ph. 9179985939
Email: balramtimande@gmail.com

Course Coordinator:

Prof. Shubhangi Ghadinkar
Assistant Professor
Department of CSE, GNIET, Nagpur

HOD (CSE)

: For circulation among Students.

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Department of Computer Science and Engineering

Date: 20-02-2023

-:Notice:-

All the students of 4th, 6th & 8th semester are hereby informed that department of CSE has decided to conduct the Add-on course for 30 Hours from Date: 27-02-2023 to 04-03-2023. All the interested students are requested to register their name to respective class teachers. Note that the Add-on course is free of cost for all the registered students of the departments. To get the certificate (Soft Copy) of Add-on course attendance in Add-on course should not be less than 80%.

Name of the Add-on course: ***Microcontroller MCS-51 architecture and Programming.***
Resource person details:

Resource person details:
Dr. Balram Timande
Associate Professor, Department of ETE, GNIET, Nagpur
Ph. 9179985939
Email: balramtimande@gmail.com

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: For circulation among Students.

Cc:
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3. IQAC.
4. For Circulation among students
5. Notice Board.

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Brief Report On

Add-on Course: Microcontroller MCS-51 architecture and Programming.

The one week Add-on course on **Microcontroller MCS-51 architecture and Programming,** was organized by **Department of Computer Science and Engineering** for Students of B. Tech. 4th and 6th (CBCS) CSE. The Add-on course was organized for the period of 30 hours starting from date: **27-02-2023 to 04-03-2023.** Timing for the classes and Hands on was 10:00 am to 1:00 pm & 2:30 pm to 4:30 pm. 05 hours per day (Total Course hours = 30 Hrs). The Add-on course was fully free of cost. Total 80 students have participated and completed Add-on course successfully. The resource person for the whole course was **Dr. Balram Timande,** balramtimande@gmail.com **, 9179985939**

Course Objective and Outcomes:

Course Objective:

- Study the architecture and addressing modes of 8051.
- Impart knowledge about assembly language programs of 8051.
- Helps to understand the importance of different peripheral devices & their interfacing to 8051.
- Impart knowledge of different types of external interfaces including LEDS, LCD, Keypad Matrix, Switches & Seven segment display.

Course Outcomes: after completion of the course students will be able to;

CO-1: Describe each functional blocks of internal architecture of 8051 Microcontroller.

CO-2: Analyze problems and find solution using assembly language programming and embedded C programming.

CO-3: Demonstrate architecture and functions of different peripherals.

CO-4: Design and develops different types of embedded systems using Microcontroller 8051 and Peripherals.

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Course Mapping with POs and PSOs:

PO & PSO->	PO-1	PO-2	PO-3	PO-4	PO-5	PO-6	PO-7	PO-8	PO-9	PO-10	PO-11	PO-12	PSO-1	PSO-2
CO-1	2	2	1	1	0	1	1	0	2	3	0	2	2	2
CO-2	2	3	2	3	0	1	0	0	2	2	0	2	3	2
CO-3	2	2	2	3	3	1	0	0	3	2	0	2	3	2
CO-4	3	1	3	3	0	3	3	2	2	3	3	2	2	3
CO-5	3	2	3	2	3	3	3	2	3	3	3	2	2	3
Avg POs	2.2	2.1	2.2	2.4	1.2	1.8	1.4	2.0	2.4	2.6	1.2	2	2.4	2.4
% PO/PSO attainment	66.7 %	73.3 %	73.3 %	80.0 %	40.0 %	60.0 %	46.7 %	40.0%	80.0%	86.7%	40.0%	66.7%	80.0%	80.0%

PO-1	**Engineering knowledge**	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO-2	**Problem analysis**	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO-3	**Design/ development of solutions**	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO-4	**Conduct investigations of complex problems**	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO-5	**Modern tool usage**	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

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Course Content:

- **Embedded Systems:** Introduction to an Embedded Systems, Defining the Embedded System, Real Life Examples of Embedded Systems, and Basics of Developing for Embedded Systems, Embedded design challenges and development issues.

- 8051 Processor Architecture and Instruction Set: Registers of 8051, Inbuilt RAM, Register banks, stack, on-chip and external program code memory ROM, power reset and clocking circuits, I/O port structure, Addressing modes, Instruction set and programming.

- Counter/Timer and Interrupts of 8051: Introduction, Registers of timer/counter, Different modes of timer/counter, Timer/counter programming, Interrupt Vs Polling, Types of interrupts and vector addresses, register used for interrupts initialization, programming of external interrupts, Timer interrupts.

- Asynchronous Serial Communication and Programming: Introduction to serial communication, Data Programming, RS232 standard, Max 232/233 Driver.

- Interfacing with 8051: Interfacing and programming of: ADC (0804,0808/0809,0848) & DAC (0808), stepper motor , 4x4 keyboard matrix, Relays, LED and Seven segment display, LCD, Interfacing(only) of different types of Memory, Address decoding techniques

Schedule of Classes and Hands-on:

Daily Schedule:

From Date: 27-02-2023 to 04-03-2023

Sr. No.	Day/Date	Topic
1	Day 1	Introduction to Embedded System
		Architecture of 8051
		Pin diagram Of 8051
2	Day 2	Register function and RAM detail
		Instruction set and programming
		Instruction set and programming

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3	Day 3	Instruction set and programming
		Programming using embedded C
		Timer function, different mode of operation and application
4	Day 4	Timer programming Using C
		UART function in 8051, Serial communication application
		Serial programming using C
5	Day 5	Interrupt Application and programming using C
		Memory and IO interfacing.
		Interfacing and programming of: ADC 0808/0809
6	Day 6	Interfacing and programming of: DAC 0808
		stepper motor , 4x4 keyboard matrix
		Relays, LED and Seven segment display, LCD Interfacing

Glimpses:

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Dahegaon, Kalmeshwar Road, Nagpur-441 501.
Department of Electronics & Telecommunication Engineering

Session (2022-23)

ETC
(20

Date: 21/12/2022

NOTICE

All the Students of VI semester B.Tech. of Electronics & Telecommunication Engineering are hereby informed that the department is organizing a short-term course on **"Exploring the Applications of Artificial Intelligence in Wireless Technologies"** from 09/01/2023 to 13/01/2023. The schedule along with all other details of this course is given in the brochure. All interested students must register for the same from 26th to 30th Dec 2022. For registrations contact the course coordinator PROF. DEEPAK DESHPANDE, Electronics & Telecommunication Department.

Dr. Sushama Telrandhe
HOD ETC
Head of Department
Electronics & Telecommunication Engg
Gniet Dahegaon Nagpur

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5 days Online/Offline Course on

"EXPLORING THE APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN WIRELESS TECHNOLOGIES"

REGISTRATION FORM

Name:

Branch:

Roll No.:

Contact No.:

Email Id:

Amount(Rs):

Signature of Applicant:

Date & Place:

Signature of Co-Ordinator

Signature &Seal of HoD ETC

PATRONS

Sardar Navneet Singh Tuli, CMD, GNI, Nagpur

Mrs. Tanpreet Kaur Tuli, MD, GNI, Nagpur

ADVISORY COMMITTEE

Dr. Hemant Hajare, Principal, GNIET, Nagpur

Mr. R. M. Bhombe, Vice-Principal HOD Electrical GNIET, Nagpur

Dr. Sushama Telrandhe, HOD ETC GNIET, Nagpur

CO-ORDINATOR

Mr. Deepak Deshpande
Asst.Prof.ETC Email Id:
deepakdeshpande3d@gmail.com

ORGANIZING COMMITTEE

Mr. Sandeep Buradkar, Asst.Prof.
ETC Email Id:
sanburadkar@rediffmail.com

Ms. Soniya Milmile, Asst.Prof. ETC
Email Id: soniyamilmile4@gmail.com

ADDRESS FOR CORRESPONDENCE:

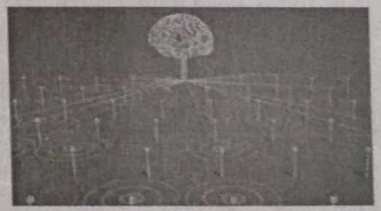
Department of Electronics & Telecommunication Engineering Guru Nanak Institute of Engg. & Tech. Kalmeshwar Road, Near Radha Swami Satsang, Dahegaon, Nagpur, Maharashtra 441501

GURU NANAKINSTITUE OF ENGINEERING & TECHNOLOGY,
NAGPUR

5 days Online/Offline course on

"EXPLORING THE APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN WIRELESS TECHNOLOGIES"

09/01/2023 TO 13/01/2023



Organized by

DEPARTMENT OF ELECTRONICS & TELECOMMUNICATION ENGINEERING, GNIET, NAGPUR

Principal
Guru Nanak Institute of
Engineering & Technology
Nagpur - 441501

REGISTRATION:
Registration can be made in advance by remitting the registration fee as indicated below along with the registration form. For registration contact Mr. Sandeep Buradkar, Asst. Prof.ETC.

REGISTRATION FEE:
Registration fees for students of GNIET are 500/-.

IMPORTANT DATES:
Registration starts:26/12/2022
Last date to Registration: 30/12/2022

SCHEDULE:
Duration of courseis30hrs, which will be covered in one week from 09/01/2023 to 13/01/2023. The schedule during the course is divided into three sessions per day as follows:
Session I- 9.00 am to 11:45 p.m
Tea Break – 11:00 am to 11:45 am
Session II-11:45 am to 1:15 p.m
Lunch Break-1:15 p.m. to 2:00 p.m.
Session III-2:00 p.m to 4:00 p.m

Mode:
Online/Offline

ELIGIBILITY
Students of **VI** Semester/III Yr. are eligible to attend the training.

IMPORTANT NOTE
✓All interested students should register before the last date of registration.
✓Students should join google meet before the timeline key will be provided on the WhatsApp group.

ABOUT THE COURSE

The course explores how Artificial Intelligence enhances wireless technology. Learn network optimization, security, and IoT resource allocation. Discover AI's role in predictive maintenance, smart antennas, and 5G/6G networks. Perfect for those curious about the future of wireless communications.

The course explores how Artificial Intelligence enhances wireless tech. Learn network optimization, security, and more to create efficient, smart wireless systems. Perfect for tech enthusiasts aiming to shape the future of wireless communication.

OBJECTIVE

The objectives of course are:

1. Knowledge of AI's Role in Wireless Networks.

2. Familiarity with 5G and Future Wireless Technologies

OUR TRAINER
1. Dr. Sushama Telrandhe HoD, ETC
2. Prof. Deepak Deshpande Asst. prof. ETC
3. Prof. Sandeep Buradkar Asst. Prof. ETC

TOPIC COVERAGE

- Understanding AI and its Components
- Basics of Wireless Communication
- Convergence of AI and Wireless: Opportunities and Challenges
- AI-based Network Optimization
- Self-Healing Networks Using AI
- Predictive Maintenance in Wireless Infrastructure
- AI-based Network Optimization
- Self-Healing Networks Using AI
- Predictive Maintenance in Wireless Infrastructure
- AI-driven 5G Network Development
- Future Wireless Technologies and AI Integration
- Enabling Ultra-Reliable Low-Latency Communication (URLLC) with AI
- Threat Detection and Prevention with AI
- Biometric Wireless Security using AI
- Ensuring Privacy in AI-powered Wireless Systems
- Ethical Issues in AI and Wireless
- Responsible AI Practices
- Emerging Trends and Speculations on the Future.
- AI's role in this era

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Dahegaon, Kalmeshwar Road, Nagpur-441 501.
Department of Electronics & Telecommunication Engineering

Session (2022-23)

COURSE ON EXPLORING THE APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN WIRELESS TECHNOLOGIES

COURSE OVERVIEW:

The rapid advancement of artificial intelligence (AI) and wireless technologies has led to groundbreaking innovations in various fields. This comprehensive workshop spanning 30 to 35 hours will delve deep into the intersection of AI and wireless technologies, exploring their applications, challenges, and future potentials. Participants will gain a solid understanding of how AI is revolutionizing the wireless landscape, paving the way for smarter, more efficient, and interconnected systems.

COURSE OBJECTIVES

The objectives of the workshop are:

1. Understand the Basics: Lay the foundation by covering fundamental concepts of both artificial intelligence and wireless technologies.
2. AI in Wireless Networks: Explore how AI is transforming wireless networks, including optimization, self-healing networks, and predictive maintenance.
3. Wireless Sensing and IoT: Discuss the role of AI in enhancing wireless sensing applications and enabling the Internet of Things (IoT) ecosystem.
4. 5G and Beyond Examine how AI contributes to the development and optimization of 5G networks and upcoming wireless technologies.
5. Machine Learning in Signal Processing: Dive into the integration of machine learning techniques in wireless signal processing for enhanced performance.
6. AI-Driven Wireless Security: Explore how AI is being utilized to enhance wireless security mechanisms and threat detection.
7. Case Studies: Analyze real-world case studies showcasing successful AI implementation in wireless applications across industries.
8. Future Trends: Explore emerging trends and speculate on the future of AI in wireless technologies.

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SYLLABUS

DURATION: 30

HOURS

1. Introduction to AI and Wireless Technologies (3 hours)

- Understanding AI and its Components
- Basics of Wireless Communication
- Convergence of AI and Wireless: Opportunities and Challenges

2. AI in Wireless Networks (3 hours)

- AI-based Network Optimization
- Self-Healing Networks Using AI
- Predictive Maintenance in Wireless Infrastructure

3. Wireless Sensing and IoT (6 hours)

- Enhancing Wireless Sensing with AI
- Role of AI in the IoT Ecosystem
- Case Studies: AI-Enabled IoT Applications

4. 5G and Beyond (6 hours)

- AI-driven 5G Network Development
- Future Wireless Technologies and AI Integration
- Enabling Ultra-Reliable Low-Latency Communication (URLLC) with AI

5. AI-Driven Wireless Security (6 hours)

- Threat Detection and Prevention with AI
- Biometric Wireless Security using AI
- Ensuring Privacy in AI-powered Wireless Systems

6. Ethical Considerations and Future Trends (6 hours)

- Ethical Issues in AI and Wireless
- Responsible AI Practices
- Emerging Trends and Speculations on the Future

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COURSE OUTCOME

After completing this course,

1. Solid Understanding of AI and Wireless Technologies:

- Participants will have a clear grasp of the fundamentals of artificial intelligence and wireless communication, enabling them to understand the convergence of these two domains.

2. Knowledge of AI's Role in Wireless Networks:

- Participants will comprehend how AI is used to optimize wireless networks, create self-healing systems, and enable predictive maintenance.

3. Insight into Wireless Sensing and IoT:

- Participants will understand how AI enhances wireless sensing and contributes to the development of the Internet of Things (IoT) ecosystem.

4. Familiarity with 5G and Future Wireless Technologies:

- Participants will be acquainted with how AI drives the development of 5G networks and beyond, including ultra-reliable low-latency communication (URLLC) technologies.

5. Understanding AI-Driven Wireless Security:

- Participants will learn about using AI for threat detection, biometric security, and privacy preservation in wireless systems.

6. Ethical Considerations in AI and Wireless:

- Participants will recognize the ethical implications of integrating AI in wireless technologies and will understand responsible practices.

7. Exposure to Real-World Case Studies:

- Participants will have analyzed case studies showcasing successful AI implementations in wireless applications across various industries.

8. Enhanced Problem-Solving Skills:

- Participants will develop enhanced problem-solving skills by applying AI techniques to wireless scenarios.

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Department of Electronics & Telecommunication Engineering

Session (2022-23)

CERTIFICATE COURSE ON EXPLORING THE APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN WIRELESS TECHNOLOGIES

Time Table

Date: -02-01-2023

Duration of Course: 30 Hours

Date	Time	Course Contents
09/01/2023	9:30 -10:00	Why AI is trending nowadays?
09/01/2023	10:00-11:30	Understanding AI and its Components
09/01/2023	11:45-1:15	Basics of Wireless Communication
09/01/2023	2:00-4:00	Convergence of AI and Wireless: Opportunities and Challenges
10/01/2023	10:00-11:30	AI-based Network Optimization
10/01/2023	11:45-1:15	Self-Healing Networks Using AI
10/01/2023	2:00-4:00	Predictive Maintenance in Wireless Infrastructure
11/01/2023	10:00-11:30	Enhancing Wireless Sensing with AI
11/01/2023	11:45-1:15	Role of AI in the IoT Ecosystem
11/01/2023	2:00-4:00	Case Studies: AI-Enabled IoT Applications
12/01/2023	10:00-11:30	AI-driven 5G Network Development
12/01/2023	11:45-1:15	Future Wireless Technologies and AI Integration
12/01/2023	2:00-4:00	Enabling Ultra-Reliable Low-Latency Communication (URLLC) with AI
13/01/2023	10:00-11:30	Threat Detection and Prevention with AI
13/01/2023	11:45-1:15	Biometric Wireless Security using AI
13/01/2023	2:00-4:00	Ensuring Privacy in AI-powered Wireless Systems

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Schedule

- Session I- 9.00 am to 11:45p.m
- Tea Break – 11:00 am to 11:45am
- Session II-11:45 am to 1:15p.m
- Lunch Break-1:15 p.m. to 2:00p.m.
- Session III-2:00 p.m to 4:00p.m

Prof. Deepak Deshpande

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Guru Nanak Educational Society's

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Website: www.gniet.ac.in Email: gnietnagpur@gmail.com

MCQ's of Add on Courses on Exploring the Application of Artificial Intelligence in Wireless Technologies

Name of Student:_____

Q1. In how many category processes is Artificial Intelligence classified in?

a) Depends on the input nature
b) 5
c) 2
d) 3

Q2. Which of the following is the common language for Artificial Intelligence?

a) Python
b) Java
c) Lisp
d) P

Q3. The "Father of Artificial Intelligence" is:

a) Alan Turing
b) Charles Babbage
c) John McCarthy
d) None of the above

Q4. What is Artificial intelligence?

a) Putting your intelligence into Computer
b) Programming with your own intelligence
c) Making a Machine intelligent
d). Putting more memory into Computer

Q5. Computer programs that mimic the way the human brain processes information is called as

a) Machine Learning
b) Deep Learning
c) Neural Networks
d) None of these

Q6. Which is the most straightforward approach for planning algorithm?

a) Best-first search
b) State-space search
c) Depth-first search
d) Hill-climbing search

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Q7.What are the different types of Artificial Intelligence approaches?

a) Strong Approach
b) Weak Approach
c) Applied Approach
d) All of the above

Q8.Decisions of Victory/Defeat are made in Game trees using which algorithm?

a) DFS
b) BFS
c) Heuristic Search
d) Min/Max Algorithm

Q9.Which of the following architecture are also known as systolic arrays?

a) MISD
b) SISD
c) SIMD
d) None of the above

Q10. How is a decision reached upon by a decision tree?

a) No test
b) Single Test
c) Double Test
d) Multiple sequences of tests

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Website: www.gniet.ac.in Email: gnietnagpur@gmail.com

MCQ's of Add on Courses on Exploring the Application of Artificial Intelligence in Wireless Technologies

Name of Student: ASHAY RAUT.

Q1. In how many category processes is Artificial Intelligence classified in?

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Department of Electronics & Telecommunication Engineering
Session (2022-23)
ADD ON COURSE EVALUATION FORM:

Add on Course evaluation Form

Please submit feedback regarding the Add on course you have just completed, including feedback on course structure, content, and instructor.

soniyamilmile4@gmail.com
Switch account

Not shared

* Indicates required question

Student Name *

Your answer

Contact Number *

Your answer

Email Id

Your answer

Level of effort you put into the course *

- Poor
- Fair
- Satisfactory
- Very Good

Contribution of the course to your skill and knowledge *

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Contribution of the course to your skill and knowledge *

- Poor
- Fair
- Satisfactory
- Very Good

Skill and responsiveness of the instructor *

- Poor
- Fair
- Satisfactory
- Very Good

Course content was organized and well planned *

- Poor
- Fair

Course content was organized and well planned *

- Poor
- Fair
- Satisfactory
- Very Good

What aspects of this course were most useful or valuable? *

Your answer

Any other comments or suggestions? Please share them below

Your answer

Submit Clear form

Never submit passwords through Google Forms.

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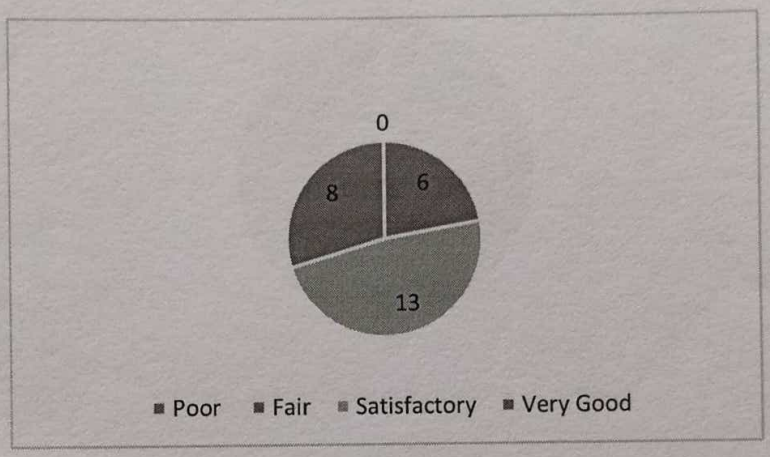
Department of Electronics & Telecommunication Engineering
Session (2022-23)

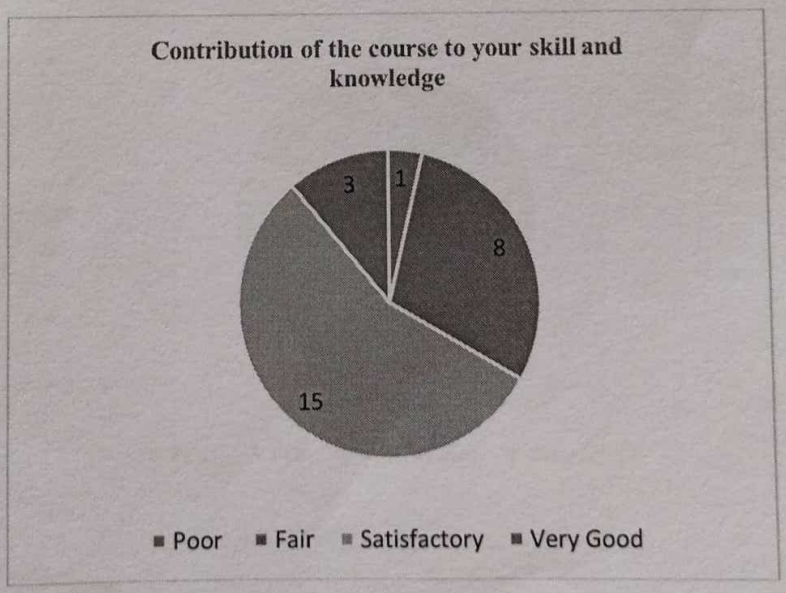
Feedback Analysis of Add on Courses on Exploring the Application of Artificial Intelligence in Wireless Technologies

Total No. of Students 27

1. Level of effort you put into the course



2. Contribution of the course to your skill and knowledge



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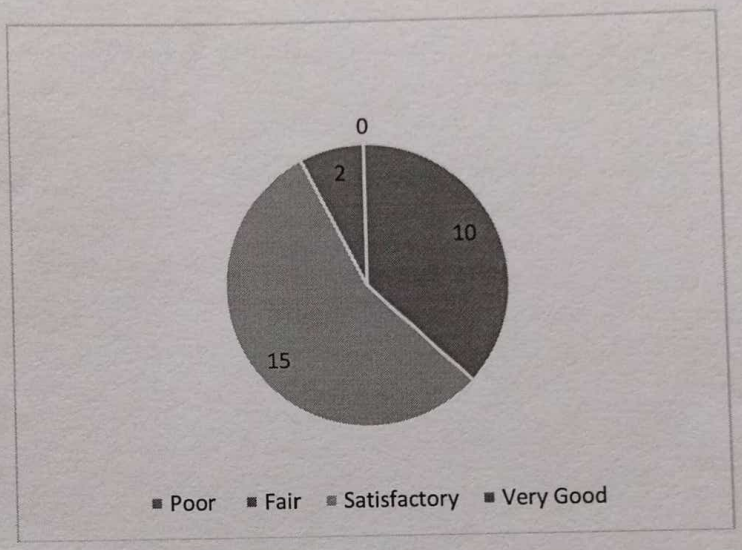
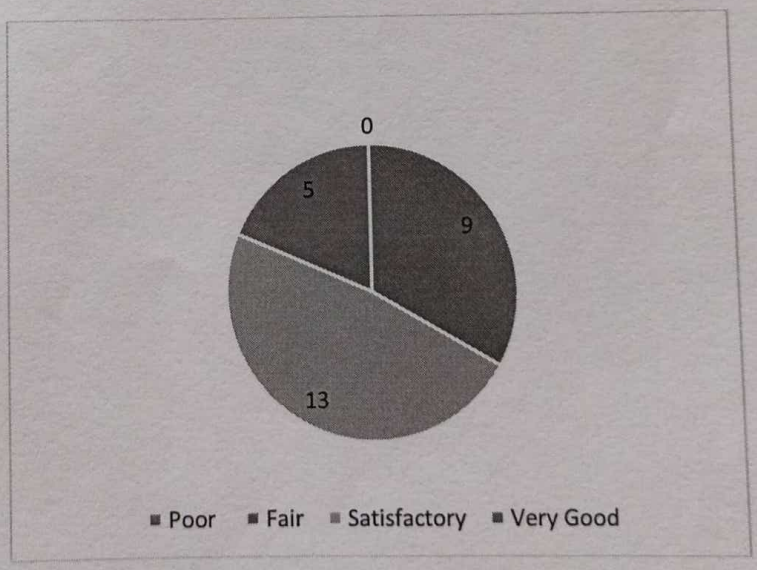
Department of Electronics & Telecommunication Engineering
Session (2022-23)

CS 2

3. Skill and responsiveness of the instructor



4. Course content was organized and well planned



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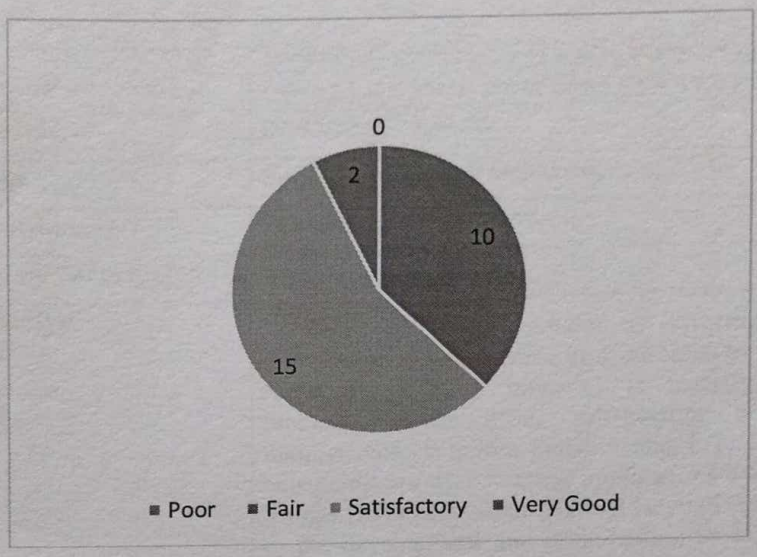
Department of Electronics & Telecommunication Engineering
Session (2022-23)

3. Skill and responsiveness of the instructor



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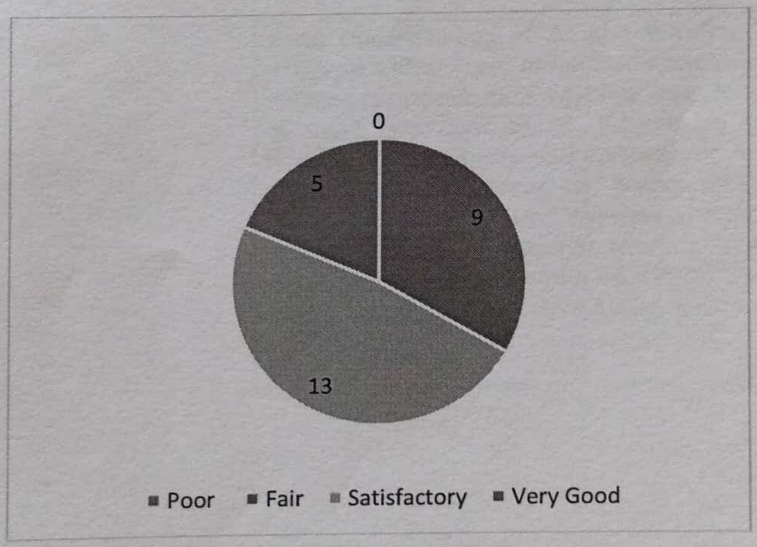

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Department of Electronics & Telecommunication Engineering
Session (2022-23)

REPORT ON EXPLORING THE APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN WIRELESS TECHNOLOGIES

1	**Course Title**	**EXPLORING THE APPLICATIONS OF ARTIFICIAL INTELLIGENCE IN WIRELESS TECHNOLOGIES**
2	**Course Schedule**	**09/01/23 to 13/01/23**
3	**Course Venue**	**Seminar room and Department of ETC**
4	**Name of Coordinator**	**Prof. Deepak Deshpande**
5	**No. Of students Participated**	**27**
6	**Course Objective**	To study the basic foundation by covering fundamental concepts of both artificial intelligence and wireless technologies. AI in Wireless Networks: Explore how AI is transforming wireless networks, including optimization, self-healing networks, and predictive maintenance. Wireless Sensing and IoT. Discuss the role of AI in enhancing wireless sensing applications and enabling the Internet of Things (IoT) ecosystem. 5G and Beyond Examine how AI contributes to the development and optimization of 5G networks and upcoming wireless technologies. Future Trends: Explore emerging trends and speculate on the future of AI in wireless technologies
7	**Course Outcome**	Solid Understanding of AI and Wireless Technologies: Participants will have a clear grasp of the fundamentals of artificial intelligence and wireless communication, enabling them to understand the convergence of these two domains. 2. Knowledge of AI's Role in Wireless Networks: Participants will comprehend how AI is used to optimize wireless networks, create self-healing systems, and enable predictive maintenance. Insight into Wireless Sensing and IoT: Participants will understand how AI enhances wireless sensing and contributes to the development of the Internet of Things (IoT) ecosystem. Familiarity with 5G and Future Wireless Technologies:

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Students attended Add on courses on Exploring the application of Artificial Intelligence in wireless technology from 9/1/23 to 13/1/23

Prof. Deepak Deshpande
Program Coordinaor

Dr. Sushama Telrandhe
HOD, ETC

Head of Department
Electronics & Telecommunication Engg
Gniet Dahegaon Nagpur

Dr. Hemant Hajare
Principal GNIET

Principal
Guru Nanak Institute of
Engineering & Technology
Nagpur

EE
22-23

GURU NANAK INSTITUTE OF ENGINEERING & TECHNOLOGY

Dahegaon, Kalmeshwar Road, Nagpur-441 501

DEPARTMENT OF ELECTRICAL ENGINEERING

Date: 21/12/2022

NOTICE

All the Students of VII semester B.E. of Electrical Engineering are hereby informed that department is organizing a short term course on **"Applications of MATLAB in Electrical Engineering"** from 28/12/2022 to 02/01/2023. The schedule along with all other details of this course is given in the brochure. All the interested students must register for the same from 22th to 26th May, 2022. For registration contact to the course coordinator Mr. Akshay Pillewan , Assistant Professor, Electrical Engineering Department.

Mr. R. M. Bhombe
HOD EE

Copy to:

1) Display on Notice Board
2) Circulation Among the Students Whatsaap group
3) Head T&P
4) Principal for Information

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One Week Online Course on

"APPLICATIONS OF MATLAB IN ELECT RICAL ENGINEERING "

REGISTRATION FORM

Name:

Branch:

Roll No. :

Contact No. :

Email Id:

Amount (Rs): _____

Signature of Applicant:

Date & Place:

Signature of Co-Orinator

Signature& Seal of HoD EE

PATRONS

Sardar Navneet SinghTuli,CMD, GNI, Nagpur

Mrs. Tanpreet Kaur Tuli, MD, GNI, Nagpur

ADVISORY COMMITTEE

Dr. Sanjeev Shrivastava, Principal, GNIET, Nagpur

Mr. R .M. Bhombe, HOD Electrical GNIET, Nagpur

CO-ORDINATOR

Mr. Yogesh Likhar, Asst. Prof. EE
Email Id:ymlikhar@gmail.com

ORGANIZING COMMITTEE

Ms. Diksha Khare, Asst. Prof. EE
Email Id:dipavali_786@yahoo.co.in

ADDRESS FOR CORRESPONDENCE:

Department of Electrical EngineeringGuru Nanak Institute of Engg. & Tech. Kalmeshwar Road,Near Radha Swami Satsang,Dahegaon, Nagpur, Maharashtra 441501

GURU NANAK INSTITUE OF ENGINEERING & TECHNO LOGY, NAGPUR

One Week Course on

"APPLICATION S OF MATLAB IN ELECT RICAL ENGINEERING "

28/12/2022 TO 02/01 /2023

Organized by

DEPARTMENT OF ELECTRICAL ENGINEERING, GNIET , NAGPUR

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Guru Nanak Institute of Engineering & Technology
Nagpur - 441501

REGISTRATION:
Registration can be made in advance by remitting the registration fee as indicated below along with the registration form. For registration contact to Mr. Yogesh Likhar, Asst. Prof. EE.

REGISTRATION FEE:
Registration fees for students of GNIET is 500/-.

IMPORTANT DATES:
Registration starts : 22/12/2022
Last Date of Registration : 26/12/2022

SCHEDULE:
Duration of course is 38 hrs, which will be covered in one week from 28/12/2022 to 02/01/2023. The schedule during the course is divided into two sessions per day as follow:
Session 1 : 9:00 am To 12:30 pm
Lunch Break : 12:30 pm To 1:30 pm
Session 2 : 1:30 pm To 4:30 pm

Mode :
Goggle Meet

ELIGIBILITY
Students of VIII Semester/ IV Yr. are eligible to attend the training.

IMPORTANT NOTE
✔All interested students should register before the last date of registration .
✔Students should join the google meet before time link will be provided on whasaap group.

ABOUT THE COURSE

It is an add on course which helps the students to know the application of MATAB in the area of electrical engineering. The course mainly focuses on the student eager to learn about Matrix Laboratory which is a high-level language and interactive environment for numerical computation, visualization, programming and simulation of electrical circuits. Using MATLAB, A student can analyze data, develop algorithms, and simulate electrical circuits.

OBJECTIVE
The objectives of course are:

1. To make students familiar with MATLAB software
2. To teach students basic MATLAB programming.
3. The course will also teach the students about the simulink modelling.

OUR TRAINER
Ms. A. Pillewan, Asst. Prof. EE Email Id: akshu1712@gmail.com

TOPIC COVERAGE

1.Introduction (8hrs)

- MATLAB Basics for the Budding Engineer
- Basic commands
- Script & function file
- Basic mathematical and logical calculations
- Use of for loop
- Drawing plot

2.Experimentation and Modelling in MATLAB (6hrs)

- Design and Implementation
- Project Based Learning
- Accessing, exploring, analysing and visualizing data in MATLAB

3. Electrical engineering concepts Using MATLAB and Simulink (7hrs)

- Introduction to Simulink
- Applications of Simulink in System modelling
- Modelling Basic electrical Circuit in Simulink and obtaining characteristic plots

4.Electrical engineering using Simscape (Physical Modeling)(8hrs)

- Electrical engineering using Sim Power systems
- Control system design and analysis
- Power Electronics Based drive analysis

5. MATLAB Scope in R & D (9hrs)

- Different models of wind and solar system
- Industrial power system Design
- Diffrent industrial models

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Department of Electrical Engineering

Session(2020-21)

CERTIFICATE COURSE ON APPLICATIONS OF MATLAB IN ELECTRICAL

Time Table

Date:-02-12-2022

Duration of Course: 38 Hours

Date	Course Contents
28-12-2022	Introduction to Matlab, Script of Matlab
29-12-2022	Experimentation in MATLAB, Modelling in MATLAB
30-12-2022	Electrical engineering concepts Using MATLAB and Simulink
31-12-2022	Electrical engineering using Simscape (Physical Modeling)
01-1-2023	Power Electronics Based drive analysis
2-1-2023	MATLAB Scope in R & D

Schedule

- Session I-9:00 am to 12:00 p.m
- Lunch Break-12:00 p.m. to 1:00 p.m.
- Session II-1:00 p.m to 4:00 p.m

Venue
Mode Online .

Coordinator
Prof.A.Pillewan

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COURSE ON APPLICATIONS OF MATLAB IN ELECTRICAL

COURSE OBJECTIVES

The objectives of this course are:

1. To make students familiar with MATLAB software
2. To teach students basic MATLAB programming.

SYLLABUS

DURATION : 38 HOURS

1.Introduction (8hrs)

- MATLAB Basics for the Budding Engineer
- Basic commands,
- Script & function file
- Basic mathematical and logical calculations
- Use of for loop
- Drawing plot

2.Experimentation and Modelling in MATLAB (6hrs)

- Design and Implementation
- Project Based Learning
- Accessing, exploring, analysing and visualizing data in MATLAB

3. Electrical engineering concepts Using MATLAB and Simulink (7hrs)

- Introduction to Simulink
- Applications of Simulink in System modelling
- Modelling Basic electrical Circuit in Simulink and obtaining characteristic plots

4.Electrical engineering using Simscape (Physical Modeling)(8hrs)

- Electrical engineering using SimPowersystems
- Control system design and analysis
- Power Electronics Based drive analysis

5. MATLAB Scope in R & D (9hrs)

- Different models of wind and solar system
- Industrial power system Design
- Diffrent industrial models

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References: 1. https://www.mathworks.com
2. Getting Started With Matlab Rudra Pratap Oxford University Press

COURSE OUTCOME

After completing this course, students will be able to,

1. Understand basic programming in MATLAB
2. Understand the fundamental features of Simulation.
3. Able to design simulink models of different electrical circuits.
4. Understand the importance of MATLAB in R & D.

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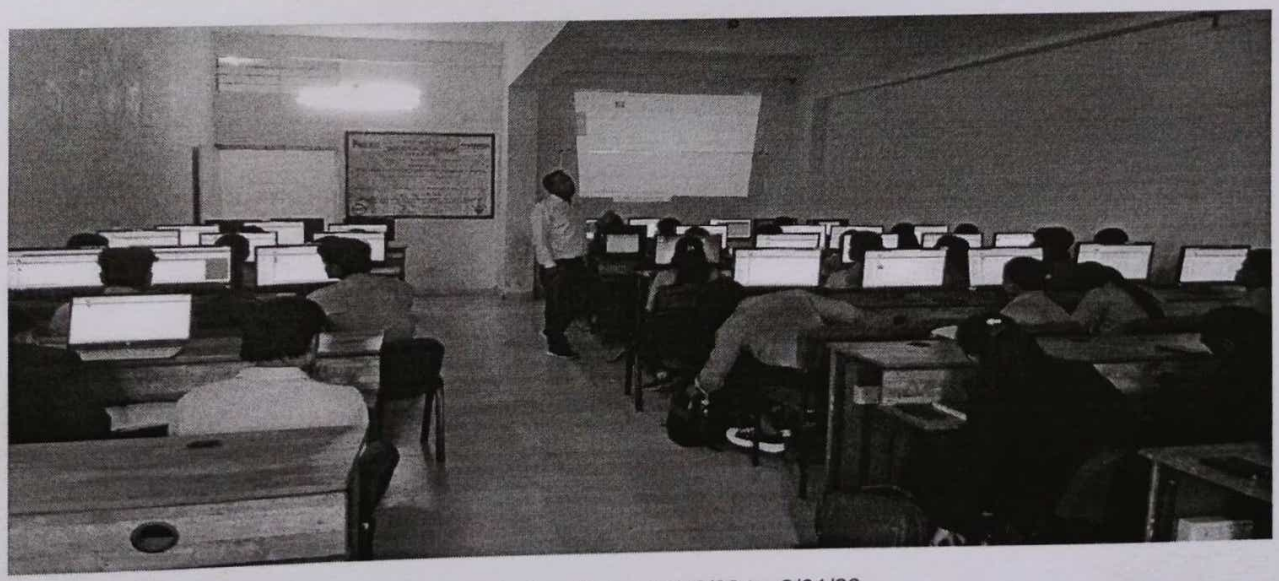

Course of Application of MATLAB in Electrical on Dated 28/12/22 to 2/01/23

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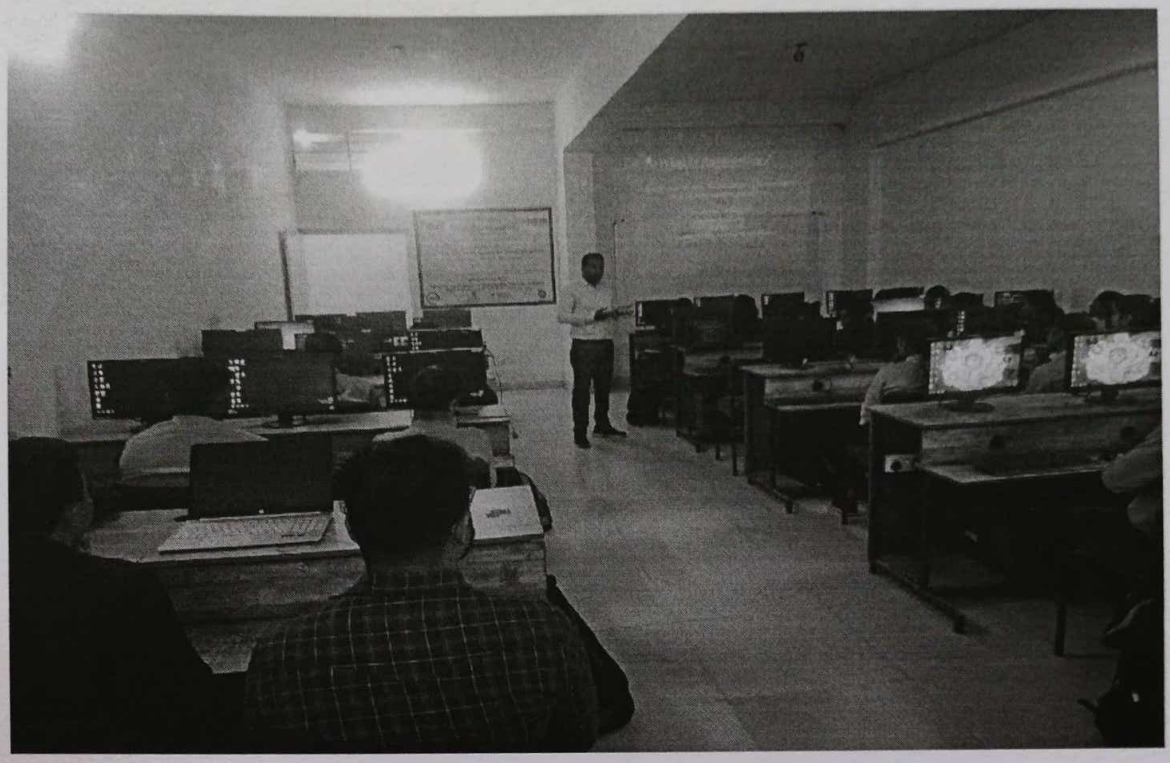

Prof. Akshay Pillewan
Coordinator

Prof. Rajendra Bhombe
H.O.D (EE)

Dr. Hemant Hajare
Principal

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MBA 22

GURU NANAK INSTITUTE OF ENGINEERING & TECHNOLOGY

Dahegaon Kalmeshwar road, Nagpur- 441501.

DEPARTMENT OF MANAGEMENT STUDIES

Date: 02/02/2022

NOTICE

All this Students of Management are here by Informed that , Department of Management is organising 10 days on Online programme on **" Certification Course On Digital Marketing"** from 07/02/2022 to 16/02/2022 from 10.00 A.M to 4.00 P.M via Online mode (Google Meet).

All the intersted Students of Management must register for the same before 05/02/02022

For Registration contact Asst. Prof. Puja Nagpure Cordinator, Department of Management Studies.

Dr. Jonathan Joseph

HOD DMS

Head of Department
Department of Management Studies
G.N.I.E.T., Nagpur-441501

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10 Days Online Programme on "CertificatecourseinFinancial Accounting" (19/02/2022to28/02/2022)

RegistrationForm

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ORGANIZINGCOMMITTEE

PATRONS

- *S.NavneetSinghTuli,C.M.D,GNI*
- *Mrs.TanpreetKaurTuli,M.D,GNI*

ADVISORS

- **Dr.JonathanJosephHOD,DMS**

CONVENER

Dr.JaspalGidwani

CO-ORDINATIONCOMMITTEE

- **Dr.JaspalGidwani**
- **Dr.JonathanJoseph**
- **Mr.RajendraKatole**

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EDUCATION FIRST

GuruNanakInstituteofEngineeringand Management, Nagpur

10Days"Certificatecoursein Financial Accounting"

19/02/2022to28/02/2022

Organized by

DEPARTMENTOFMANAGEMENT STUDIES

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Aboutcollege:

Guru Nanak Institute of Engineering & Technology (GNIET), Nagpur was established in the year 2007 and is affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, approved by All India Council for Technical Education, New Delhi and Directorate of Technical Education, Maharashtra. Experienced and dedicated staff is an asset of the institute. GNIET focuses on the core engineering field which makes it an ideal place for the growth of technical education. GNIET has the state of the art laboratories, digital library, Wi-Fi and otherfacilitiestoenhancequality of teaching learning process.

AboutCertificateProgram:

The Objectives of the course are:

Exposure to environments under which different organizations work;

Providingon-jobexperienceofpractical aspects of Accounting;

Developingdisciplinedattituderequired to become an Accountant.

Highlights:

- To learn Basic Accounting Formulas and Accounting Terminologies
- To learn Measurement, Valuation and Accounting estimates

ResourcePerson:

- Dr.JaspalGidwani

ForWhom:

- ManagementStudents

Schedule:-

19/02/2022to28/02/2022

11.00 am - 12.15 pm Inauguration

19/02/2022to28/02/2022

10a.m.-4.00p.m.Online Sessions

28/02/2022 Certificatepresentation &

Valedictory Program

RegistrationFees:Rs.1,500per participant

Venue

SardarKohliAuditorium,GNIET

GNICampus

Dahegaon,KalmeshwarRoad,Nagpur.

441501 Maharashtra India

Ph:07118-661450

Foranyquerypleasecontact:

- Dr.JaspalGidwani
- Dr.JonathanJoseph
- Mr.RajendraKatole

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GURU NANAK INSTITUTE OF ENGINEERING & TECHONOLOGY

Dahegaon kalmeshwar road, nagpur

Department of Management Studies

Session (2022-2023)

CERTIFICATE COURSE ON DIGITAL MARKETING

(07/02/2022 to 16/02/2022)

Course Objectives:

The objective of this course are:

- Brand Awareness
- Lead Generation
- Promotion for new products & services
- Target Customers
- Retaining Old customers
- Increase Sales/Profit
- Expand Market
- More Website Traffic
- Improve User Experience
- Improve conversions
- Less Costly

Syllabus

Duration: 60 Hours

Module 1: Search Engine Optimization (SEO): (15 Hours)

Introduction to Marketing and Advertisements
Introduction to Digital Marketing and Its Advantages over Traditional Marketing
Customer Centricity
What is SEO and how do Search Engines Work?

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Understanding On-page and Of-page SEO In Detail
Keyword research
Technical SEO, Mobile SEO, and Schema Markups
Link building – Blogger Outreach and Other Techniques
Social SEO, Local SEO, and International SEO
SEO Audits
SEO Tools – SEMrush, Ahrefs, etc.
Algorithm Updates
How to Rank #1 on Google?

Module 2: Social Media Optimization (SMO)(8 Hours)

What is Social Media Optimization?
Why Social Media Marketing?
Different Social Media Platforms – Quora, Facebook, Twitter, Instagram, LinkedIn, Pinterest,etc.
Promotion of Content or Product(s) on these platforms
Managing and Driving Engagement
Guidelines and Best Practices
Social Media Platforms – Case studies

Module 3: Email Marketing(12Hours)

What is Email Marketing?
Its Objectives
Tips and Tricks
Domain Reputation and SPF
Different Email Providers – Mailchimp, etc.
Campaign Creation – HTML and Built-in Editors
A/B Testing
Source Tracking, List Management, etc.

Module 4: Content Marketing and Influencer Marketing(15 Hours)

What is Content Marketing?
Its Objectives
Different Types of Content Marketing
Writing Blogs and Content and Promoting It on Different Platforms
Creating Engaging Videos and Promoting Them
What is Influencer Marketing?
How to Reach Out to Influencers and Engage Them?

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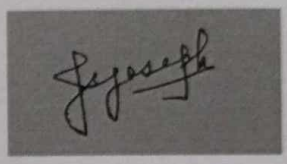
Text Books:

1) Digital Marketing, Raghavendra K., Shruti Prabhakar, Himalaya Publ. House, 2016, page no. 96-147, 155-174

2)Digital Marketing, Raghavendra K., Shruti Prabhakar, Himalaya Publ. House, 2016, page no. 179-252

Reference Books:

Digital Marketing, Raghavendra K., Shruti Prabhakar, Himalaya Publ. House, 2016, page no. 1-79



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