



Date : 5/12/2018

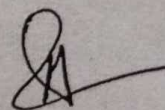
To,
The Principal,
GNIET, Nagpur.

Subject:-Regarding the permission of 10 days course programme on "Core Java".

Respected Sir,

Computer Science and Engineering Department, GNIET, Nagpur is planning to organise a ten days course program on "Core Java" on 10th December to 20th December 2018 from 10:00 A.M to 4:00 P.M for CSE and IT students. By attending this course program students will be able to enrich their knowledge in the area of Object Oriented Programming. This course will provide a vibrant opportunity for students in the recruitment phase and to enhance their programming skills.

Kindly allow us to conduct the course program on above mentioned dates.



Prof. K. Malpe
Head of Department
HOD, CSE
Computer Science & Engineering
GNIET Dahegaon Nagpur.


Principal
Guru Nanak Institute of
Engineering & Technology
Nagpur - 441501

CERTIFICATE COURSE ON CORE JAVA

Time Table

Date:-08-12-2018

Duration of Course: 40 Hours

Date	Course Contents
10-12-2018	Introduction to Java Packages
11-12-2018	Packages
12-12-2018	Interfaces
13-12-2018	Exception Handling
14-12-2018	Exception Handling
15-12-2018	Holiday
16-12-2018	Java IO Basics
17-12-2018	Collections Framework
18-12-2018	Introduction to Java GUI
19-12-2018	Java Database Connectivity (JDBC)
20-12-2018	Software Development in Java

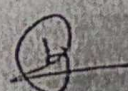
Schedule

- 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

Computer Center Lab, T1 Building.


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Nagpur - 441501


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

10 Days Course Programme on "Core Java"

(10th December to 20th December 2018)

Registration Form

Name: _____

Designation: _____

Organization: _____

Address: _____

Phone: _____

Mob: _____

Email: _____

Amount (Cash): _____

Place _____

Date _____

Signature of Participant _____

ORGANIZING COMMITTEE

PATRONS

❖ S. Navneet Singh Tuli, C.M.D,
GNI

❖ Mrs. Tanpreet Kaur Tuli, M.D,
GNI

ADVISORS

❖ Dr. Sanjeev Shrivastava, Principal
GNIET

❖ Prof. Kalpana Malpe, HOD, GNIET
CONVENER

❖ Dr. Ganesh D. Awachat
Dean (Research & Development)

GO-ORDINATION COMMITTEE

❖ Prof. Ayaz Khan
❖ Prof. Ashwini Urade



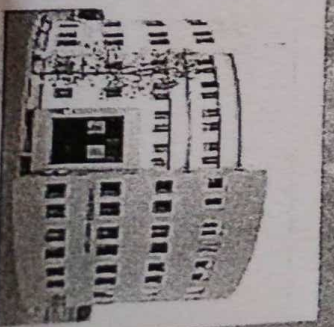
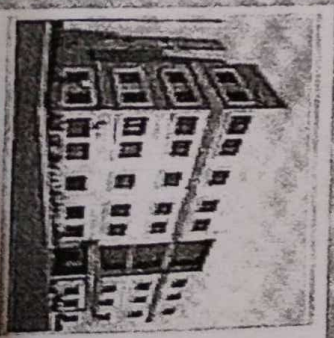
Guru Nanak Institute of
Engineering and Management,
Nagpur



10 Days Course Programme on "Core Java"

(10th Dec to 20th Dec 2018)

Organized by
DEPARTMENT OF COMPUTER SCIENCE &
ENGINEERING



Principal
Guru Nanak Institute of
Engineering & Technology
Nagpur - 441 101

Date: 24/12/2018

Report on Core Java

The Computer Science and Engineering Department organized Ten days Course programme on Core Java from 10/12/2018 to 20/12/2018.

The objective of Course are :

1. To enrich their knowledge in the area of Object Oriented Programming.
2. To provide the use of Java SDK environment to create, debug and run simple Java programs.

Total 43 students have participated in this programme..

The Session was started with the training session by Mr. Manoj Vairalkar and Prof. Dheeraj Gupta. All students having innate desire to learn and to build their skills in the computer domain can participate in this course. A very basic knowledge of java is recommended. The session was conducted by Mr. Manoj Vairalkar. The Workshop started at 10:00 A.M. with an introduction to Javascript with basic functional programming, javascript objects, Higher order Functions, coercion, till which was followed by a deeper look into Javascript using Node Js. The students were introduced to the NPM. After that, the students were taught to apply the learned concepts into a Node API project which gave them knowledge about the norms of writing a code for a project. Javascript is a scripting language majorly used in web development along with other domains like application development.

The event was a successful one due to all the efforts put in by the speakers and volunteers. We will keep organizing such events for students in future. In this Course programme the students were introduced to topics JavaScript. Students got an idea how to work with scripting language to develop application.

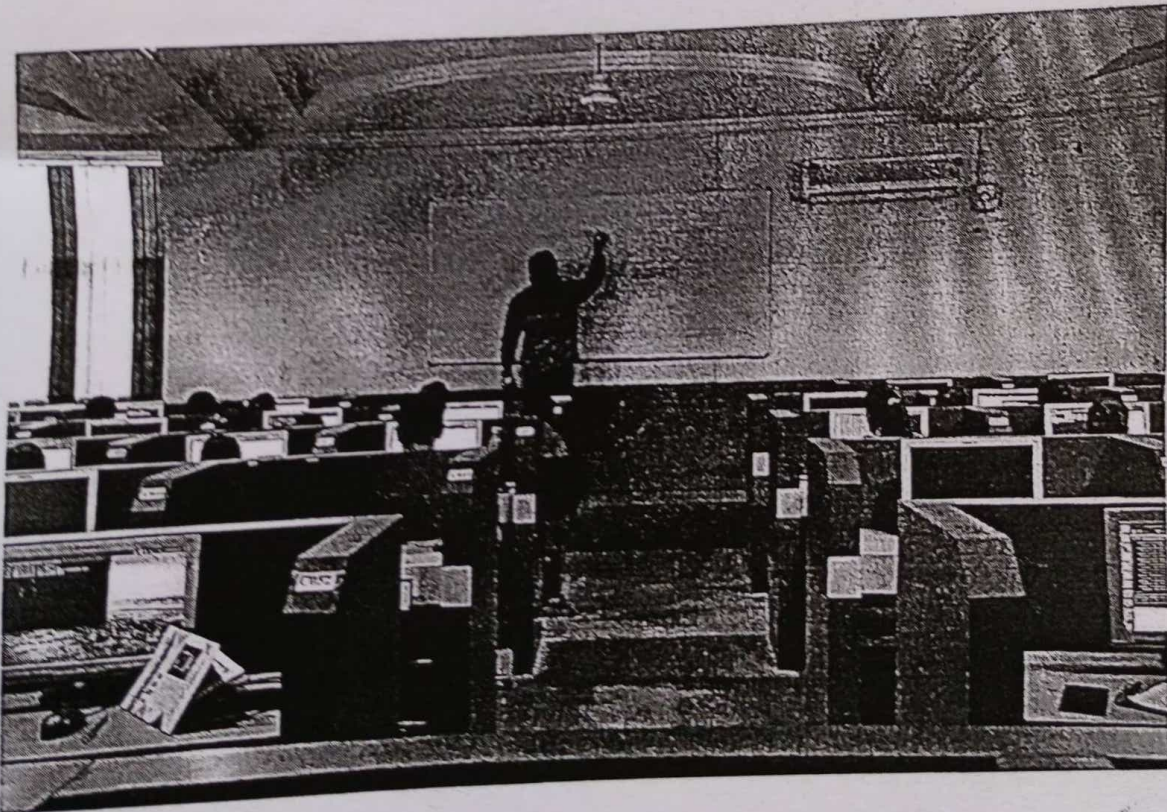
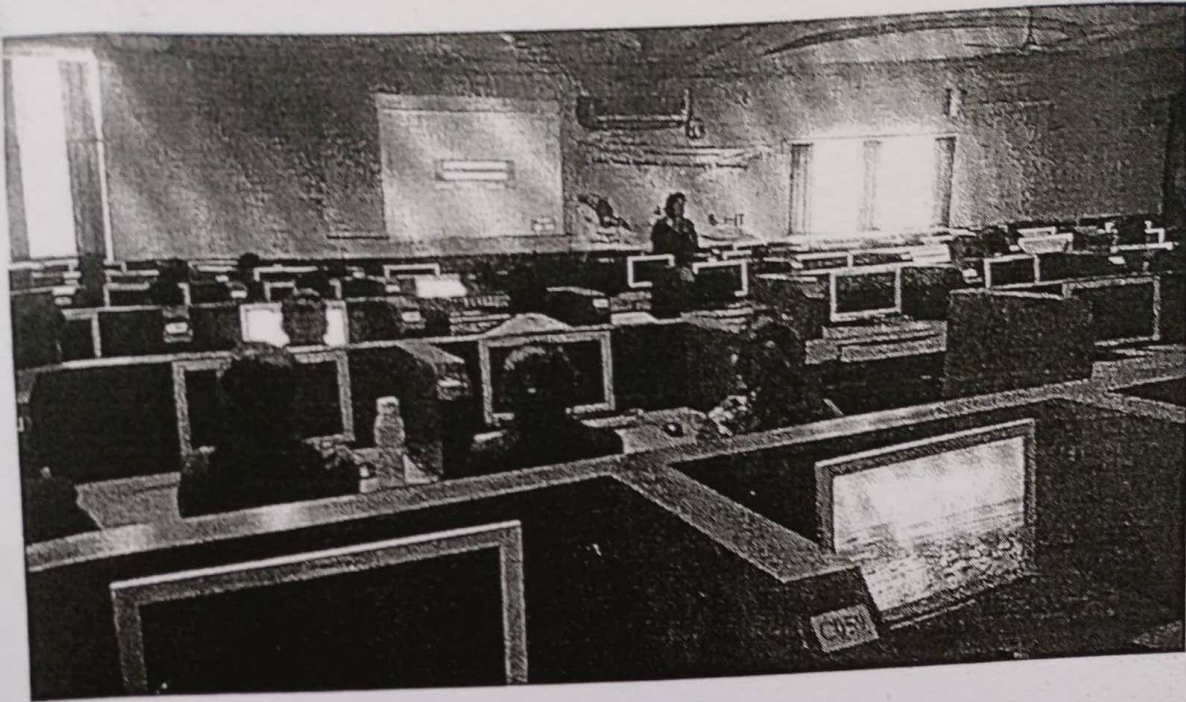
All the students really appreciated the contents that were discussed, they realized that interactions like these can help them improve their learning. Students showed keen interest in attending more advanced Programme like this in future.




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Dahegaon, Kalmeshwar Road, Nagpur-441 501.
Department of Computer Science Engineering
Session 2018-19



GNI
Guru Nanak Institutions
WISDOM BEGETS KNOWLEDGE




Prof. K. Malpe
HOD, CSE

Head of Department
Computer Science & Engineering
GNIET, Dahegaon, Nagpur.


Principal
Guru Nanak Institute of
Engineering & Technology
Nagpur - 441501



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Website: www.gniet.ac.in E-mail: gnietnagpur@gmail.com



Report
on
Add-on Course
Machine Learning

Organized By:

Department of Computer Science and Engineering

(2018 -2019)

From Date 16-12-2019 to 23-12-2019

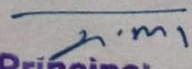
(06 Days, 05 Hrs per day, total 30 Hrs.)

(Timing: 9:15 am to 1:15 pm & 2:00 pm to 4:00 pm)

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

Report Prepared by: Prof. Veena Gajbhiye


Submitted to: IQAC, GNIET, NAGPUR


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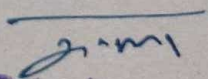
**Add on Course
ON
Machine Learning**

Date: 16/12/19 to 23/12/19
(6day 5hr per day, total 30hr)
timing:10am to 1pm and 2 to 4pm

Resource person: Dr. Balram Trimande
Associate Professor, GNIET, Nagpur
Phone:9179985939; Email : balram.ece@tgpct.com

Prof. Veena Gajbhiye Course-Cordinator	Prof. Rajendra Bhombe Vice Principal	Dr. Hemant Hajare Principal
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An Add-on course on **Advanced, Machine Learning** was conducted from date **16-12-2019** to **23-12-2019** organized by **Department of Computer Science and Engineering** for Students of B. Tech. 5th and B.E.7th CSE. The Add-on course was organized for the period of 30 hours starting **16-12-2019**. Timing for the classes and Hands on was 9:15 am to 01:15 pm & 2:00 pm to 4:00 pm. 05 hours per day (Total Course hours = 30 Hrs). The Add-on course was fully free of cost. Total 81 students have participated and completed Add-on course successfully. The resource person for the course was **Dr. Balram Timande**, balram.ece@tgpct.com , **9179985939**


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Department of Computer Science & Engineering

GNIET/CSE/18-19/

Date: 15/12/2019

-: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 " Machine Learning" from date 16-01-2019 to 23-01-2019. Timing for the classes will be from 9:15 am to 1:15 pm & 2:00 pm to 4:00 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 names to their respective class in charges 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

Copy to:

1. Hon. Chairman (For Information)
2. Principal GNIET
3. Vice-Principal GNIET
4. Notice board & Office copy.

Principal
Guru Nanak Institute of Engineering &
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Objective:

The objectives of a course on machine learning can vary depending on the level (introductory, intermediate, advanced) and the specific focus of the course (theory, applications, etc.). However, some common objectives typically include:

Understanding Core Concepts: Gain a solid understanding of foundational concepts in machine learning such as supervised learning, unsupervised learning, reinforcement learning, and their associated algorithms.

Algorithms and Techniques: Learn various machine learning algorithms and techniques including linear regression, logistic regression, decision trees, support vector machines, clustering algorithms, neural networks, etc.

Model Evaluation and Selection: Understand methods for evaluating and selecting the appropriate machine learning models for different types of data and problems. This involves concepts such as cross-validation, bias-variance tradeoff, overfitting, and underfitting.

Feature Engineering: Learn techniques for feature selection, extraction, and transformation to improve model performance and interpretability.

Implementation Skills: Develop practical skills in implementing machine learning algorithms using programming languages such as Python, R, or MATLAB, and utilizing libraries such as scikit-learn, TensorFlow, or PyTorch.

Data Preprocessing: Understand the importance of data preprocessing steps such as data cleaning, normalization, and handling missing values, and learn techniques to perform these tasks effectively.

Model Tuning and Optimization: Learn techniques for hyperparameter tuning and model optimization to improve the performance of machine learning models.

Understanding Model Limitations and Bias: Gain awareness of the limitations and biases present in machine learning models and techniques, and learn strategies to mitigate them.

Practical Applications: Explore real-world applications of machine learning across various domains such as healthcare, finance, marketing, image recognition, natural language processing, etc.

Ethical Considerations: Understand the ethical implications of machine learning algorithms and learn about responsible AI practices, fairness, transparency, and privacy concerns.

Advanced Topics: Depending on the level of the course, delve into advanced topics such as deep learning, reinforcement learning, generative adversarial networks (GANs), transfer learning, etc.

Hands-on Projects: Engage in hands-on projects or case studies to apply the concepts learned in class to real-world datasets and problems, and gain practical experience in solving machine learning problems.



Communication Skills: Develop the ability to effectively communicate machine learning concepts, methodologies, and findings to both technical and non-technical audiences through presentations, reports, and visualizations.

By achieving these objectives, students can develop a strong foundation in machine learning principles and techniques, enabling them to apply machine learning effectively in various domains and contribute to advancements in the field.

Outcomes :

The outcomes of a machine learning course can vary depending on the depth of the course, the prior knowledge of the students, and the specific objectives set by the instructor. However, some common outcomes typically include:

Understanding of Machine Learning Concepts: Students should develop a solid understanding of fundamental machine learning concepts, including different types of learning (supervised, unsupervised, reinforcement), algorithms, and evaluation methods.

Ability to Implement Algorithms: Students should be able to implement various machine learning algorithms using programming languages such as Python, R, or MATLAB, and leverage libraries like scikit-learn, TensorFlow, or PyTorch to build and train models.

Data Preprocessing Skills: Students should be proficient in preprocessing and cleaning datasets, including handling missing values, normalization, and feature engineering, to prepare data for machine learning tasks.

Model Evaluation and Selection: Students should be able to evaluate the performance of machine learning models using appropriate metrics, understand the trade-offs between different models, and select the best model for a given problem.

Practical Application of Machine Learning: Students should be able to apply machine learning techniques to real-world problems across various domains, such as image classification, natural language processing, predictive analytics, etc.

Problem-Solving Skills: Students should develop problem-solving skills by working on hands-on projects and case studies, where they apply machine learning concepts to analyze data, derive insights, and make predictions.

Understanding Model Limitations and Bias: Students should be aware of the limitations and biases inherent in machine learning models, understand the ethical implications of their use, and be able to address them appropriately.

Communication Skills: Students should be able to effectively communicate their findings and insights from machine learning projects to both technical and non-technical audiences using visualizations, reports, and presentations.



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Understanding Model Limitations and Bias: Students should be aware of the limitations and biases inherent in machine learning models, understand the ethical implications of their use, and be able to address them appropriately.

Communication Skills: Students should be able to effectively communicate their findings and insights from machine learning projects to both technical and non-technical audiences using visualizations, reports, and presentations.

Critical Thinking and Analysis: Students should develop critical thinking skills to evaluate and interpret machine learning results, identify potential issues or improvements, and iterate on their approaches accordingly.

Preparation for Advanced Study or Career: The course should prepare students for further study or careers in machine learning, data science, artificial intelligence, or related fields by providing a strong foundation in theoretical concepts and practical skills.

Overall, the outcomes of a machine learning course aim to equip students with the knowledge, skills, and mindset necessary to effectively apply machine learning techniques to solve real-world problems and contribute meaningfully to the field.

Mapping the course content to Program Outcomes (POs) and Program Specific Outcomes (PSOs) in machine learning (ML) helps ensure that the course objectives align with the broader educational goals of the program. Here's an example of how a machine learning course might be mapped to POs and PSOs:

Program Outcomes (POs):

PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

Mapping: Understanding core machine learning concepts, algorithms, and techniques, and applying them to solve real-world problems.

PO2: 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.

Mapping: Analyzing datasets, identifying patterns, and formulating machine learning models to address specific problem statements.

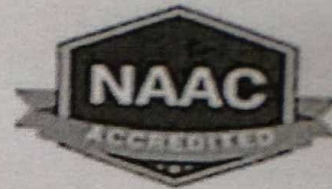
PO3: Design/Development of Solutions: Design solutions for complex engineering problems and design systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.

Mapping: Designing and implementing machine learning models, algorithms, and systems to solve real-world problems, considering ethical and societal implications.



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Mapping: Presenting findings, insights, and recommendations from machine learning projects through reports, presentations, and visualizations to both technical and non-technical audiences.

PO11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

Mapping: Managing machine learning projects, including planning, scheduling, and budgeting resources effectively.

PO12: Lifelong Learning: Recognize the need for and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

Mapping: Developing a mindset for continuous learning and staying updated with advancements in machine learning and related technologies throughout their professional careers.

Program Specific Outcomes (PSOs):

PSO1: Apply machine learning techniques to analyze data and solve complex engineering problems.

Mapping: Applying machine learning algorithms and models to analyze datasets and derive meaningful insights for solving engineering problems.

PSO2: Design and implement machine learning algorithms and systems for various applications.

Mapping: Designing, implementing, and deploying machine learning algorithms and systems for specific applications such as image recognition, natural language processing, predictive analytics, etc.

PSO3: Evaluate the performance of machine learning models and optimize them for efficiency and effectiveness.

Mapping: Evaluating machine learning models using appropriate metrics, tuning hyper parameters, and optimizing models for better performance and efficiency.

PSO4: Apply ethical principles and considerations in the design and deployment of machine learning systems.

Mapping: Considering ethical implications, fairness, transparency, and privacy concerns when designing and deploying machine learning systems.

PSO5: Communicate effectively, both orally and in writing, on complex machine learning concepts and their applications.

Mapping: Effectively communicating machine learning concepts, methodologies, findings, and recommendations through oral presentations, written reports, and visualizations.



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Course content:

- Understand the basic concepts and principles of Artificial Intelligence.
- Learn various AI techniques and algorithms for problem-solving and decision making.
- Apply AI techniques to solve real-world problems in different domains.
- Analyze ethical and societal implications of AI deployment.

Week-wise Course Plan:

Course Content:

Introduction to Machine Learning

- Definition and scope of machine learning
- Types of machine learning: supervised, unsupervised, reinforcement learning

Data Preprocessing

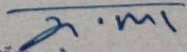
- Data cleaning techniques
- Handling missing data
- Feature scaling and normalization
- Feature selection and extraction

Supervised Learning

- Linear Regression
- Logistic Regression
- Decision Trees
- Support Vector Machines
- k-Nearest Neighbors

Unsupervised Learning

- Clustering algorithms (K-means, Hierarchical clustering)
- Principal Component Analysis (PCA)
- t-Distributed Stochastic Neighbor Embedding (t-SNE)


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Evaluation and Validation

Cross-validation

Bias-variance tradeoff

Model evaluation metrics (accuracy, precision, recall, F1-score)

Model Optimization

Hyperparameter tuning

Grid search

Random search

Model selection techniques

Introduction to Neural Networks

Perceptrons

Multi-layer perceptrons (MLP)

Backpropagation algorithm

Activation functions (sigmoid, ReLU)

Advanced Topics

Deep Learning fundamentals

Convolutional Neural Networks (CNNs)

Recurrent Neural Networks (RNNs)

Transfer Learning

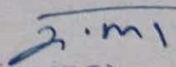
Ethical Considerations in Machine Learning

Bias and fairness in machine learning

Privacy concerns

Responsible AI practices

Mapping with Program Outcomes (POs) and Program Specific Outcomes (PSOs):


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Program Outcomes (POs):

Assessment:

Assignments and quizzes: 30%

Midterm Exam: 20%

Project: 30%

Final Exam: 20%

References:

Books:

Bishop, C. M. (2006). Pattern Recognition and Machine Learning. Springer.

Hastie, T., Tibshirani, R., & Friedman, J. (2009). The Elements of Statistical Learning: Data Mining, Inference, and Prediction. Springer.

Goodfellow, I., Bengio, Y., & Courville, A. (2016). Deep Learning. The MIT Press.

Murphy, K. P. (2012). Machine Learning: A Probabilistic Perspective. The MIT Press.

Marsland, S. (2015). Machine Learning: An Algorithmic Perspective. CRC Press.

Journals and Papers:

LeCun, Y., Bengio, Y., & Hinton, G. (2015). Deep learning. Nature, 521(7553), 436-444.

Jordan, M. I., & Mitchell, T. M. (2015). Machine learning: Trends, perspectives, and prospects. Science, 349(6245), 255-260.

Murphy, K. P. (2012). Probabilistic machine learning: An introduction. Journal of the Royal Statistical Society: Series A (Statistics in Society), 175(6), 946-975.

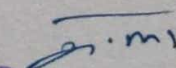
Sutton, R. S., & Barto, A. G. (2018). Reinforcement Learning: An Introduction. The MIT Press.

Goodfellow, I., Bengio, Y., Courville, A., & Bengio, Y. (2016). Deep Learning. MIT press.

Online Resources:

Scikit-learn Documentation: <https://scikit-learn.org/stable/documentation.html>

TensorFlow Documentation: <https://www.tensorflow.org/guide>


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Daily Schedule:

From Date: 16-12-2019 to 23-12-2019

Day 1: Foundations of Advanced Python Programming

Morning Session:

Introduction to Advanced Python Concepts

Object-Oriented Programming (OOP) in Python

Hands-on: Implementing Classes and Inheritance

Afternoon Session:

Functional Programming Techniques

Asynchronous Programming with Asuncion

Hands-on: Writing Asynchronous Code in Python

Day 2: Specialized Python Libraries and Frameworks

Morning Session:

Web Development with Django: MVC Architecture

Hands-on: Building a Simple Django Application

Afternoon Session:

Micro services with Flask: Routing and Request Handling

Hands-on: Creating Restful APIs with Flask

Day 3: Data Analysis and Machine Learning

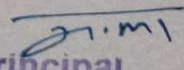
Morning Session:

Data Analysis with NumPy and Pandas: Arrays and DataFrames

Hands-on: Exploring and Manipulating Data with Pandas

Afternoon Session:

Machine Learning with scikit-learn: Classification and Regression Models


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Hands-on: Building and Evaluating Machine Learning Models

Day 4: Advanced Topics in Python Programming

Morning Session:

Concurrency and Parallelism: Multithreading and Multiprocessing

Hands-on: Implementing Concurrent Execution in Python

Afternoon Session:

Performance Optimization Techniques: Profiling and Benchmarking

Hands-on: Optimizing Code Performance in Python

Day 5: Design Patterns and Testing Strategies

Morning Session:

Design Patterns and Best Practices

Hands-on: Applying Design Patterns in Python

Afternoon Session:

Testing and Debugging Strategies

Hands-on: Writing Unit Tests and Debugging Python Code

Day 6: Real-World Applications and Capstone Project

Morning Session:

Building Scalable Web Applications

Data Analytics and Visualization Techniques

Afternoon Session:

Machine Learning and AI Applications

Deployment and Continuous Integration (CI/CD)

Capstone Project Presentation and Discussion


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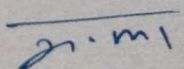
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Feedback on Certificate course

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 Coordinator: Prof. Veena Gajbhiye

Assistant Professor 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


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Website: www.gnieLac.in E-mail: gnieLnagpur@gmail.com



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-Below Average):*

Mark only one oval

1

2

3

4

5

6. How do you rate technical knowledge of the Teacher?*

Mark only one oval

1

2

3

4

5

7. How do you rate cooperation from teacher to Solve individual doubts?.

Mark only one oval.

1

2

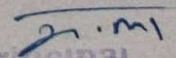
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4

5

8. How do you rate Practical Session?.

Mark only one oval.


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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?

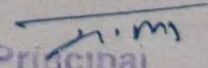
Mark only one oval

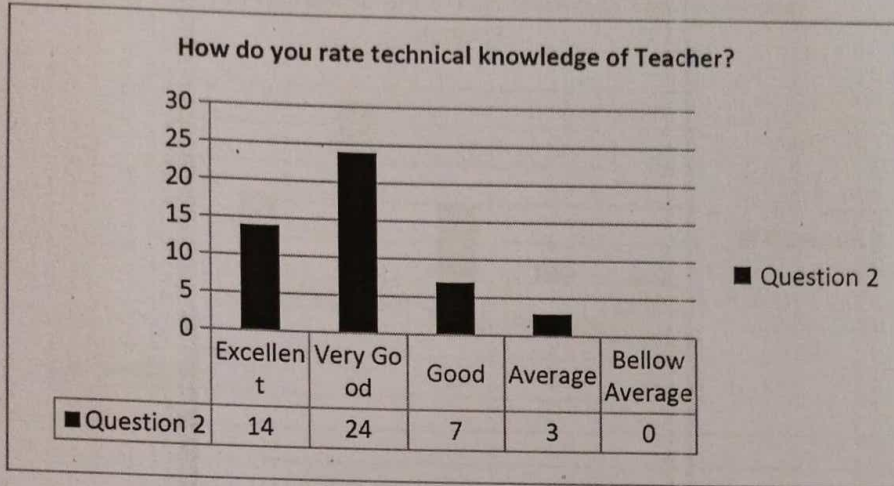
1 2 3 4 5

12. Suggestions if any.

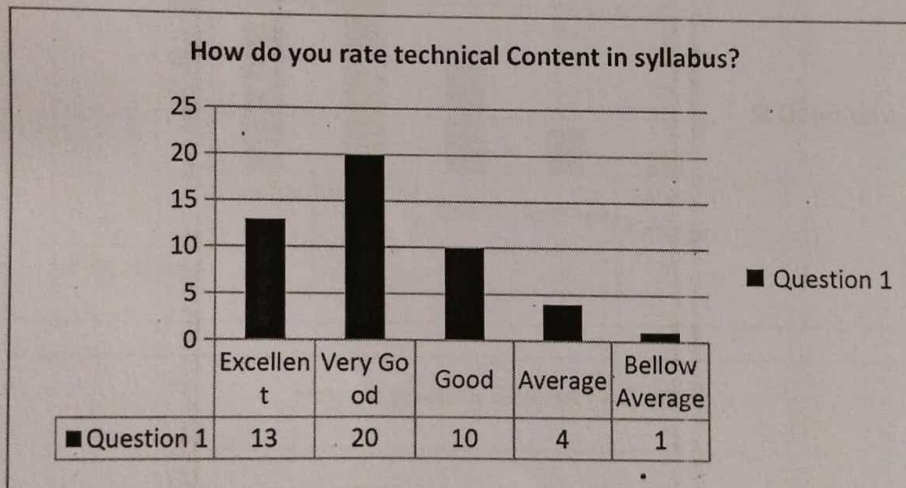
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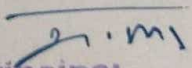
Google Forms


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Feedback taken using Google form and analysis done on rating given




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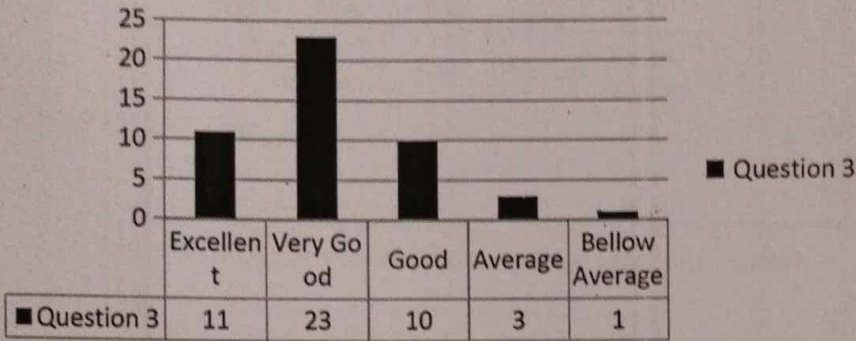


Guru Nanak Educational Society's
**GURU NANAK INSTITUTE
OF ENGINEERING & TECHNOLOGY**

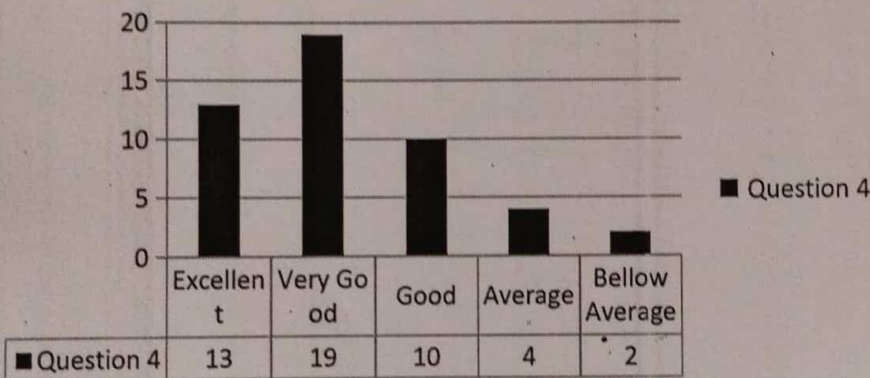
APPROVED BY AICTE, DTE & AFFILIATED TO RTM NAGPUR UNIVERSITY, NAGPUR
Dahegaon, Opp IOC Petrol pump, Kalmeshwar Road, Nagpur- 441501 Ph. 07118-661400
Website: www.gniet.ac.in E-mail: gnietnagpur@gmail.com



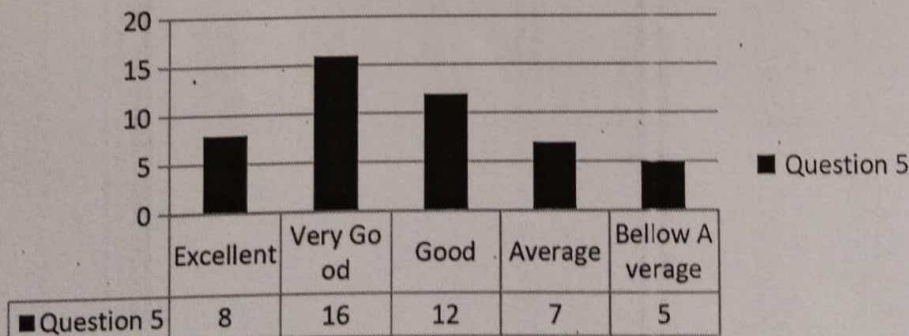
How do you rate cooperation from teacher to Solve individual doubts?



How do you rate Practical Session?



How do you rate Internet Facility?



[Signature]
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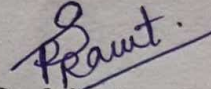


ETC
18-19

Date:26/02/2019

NOTICE

All the Students of IV semester B.E. of Electronics & Telecommunication Engineering are hereby informed that department is organizing a short term course on “**ADD ON COURSE ON INTRODUCTION TO BASICS OF MECHATRONICS**” from 01/03/2019 to 06/03/2019. 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 26th to 28th 2019. For registration of the course contact the co-ordinator in Electronics & Telecommunication Department.



**Prof. Sucheta Raut
HOD ETC**

Head of Department
Electronics & Telecommunication En.
Griet Dahegaon Nagpur

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- 3) Head T&P
- 4) Principal for Information


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Nagpur - 441501**

Six Day Workshop on

**“INTRODUCTION TO BASICS OF
MECHATRONICS”**

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 ETC

PATRONS

Sardar Navneet Singh Tuli, CMD, GNI,
Nagpur

Mrs. Tanpreet Kaur Tuli, MD, GNI, Nagpur

ADVISORY COMMITTEE

Dr. Shrivastava, Principal, GNIET, Nagpur

Mr. R. M. Bhombe, Vice Principal GNIET,
Nagpur

CO-ORDINATOR

Mr. Deepak Deshpande, Asst. Prof. ETC

Email Id:-deepaksir@gmail.com

ORGANIZING COMMITTEE

Ms. Deepak Deshpande, Asst. Prof. ETC

Email Id: deepaksir@gmail.com

Prof. Sucheta Raut HOD, ETC

ADDRESS FOR

CORRESPONDENCE:

Department of Electronics and

Telecommunication Engineering Guru Nanak

Institute of Engg. & Tech. Kalmeshwar

Road, Near Radha Swami Satsang, Dahegaon,
Nagpur, Maharashtra 441501

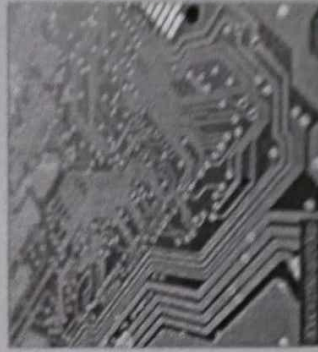
**GURU NANAK INSTITUTE
OF ENGINEERING &
TECHNOLOGY,
NAGPUR**



Add on Course on

**“INTRODUCTION TO BASICS
OF MECHATRONICS”**

01/03/2019 TO 06/03/2019



Organized by
**DEPARTMENT OF
ELECTRONICS and
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 to Mr. Deepak Deshpande, Asst. Prof. ETC.

REGISTRATION FEE:

Registration fees for students of GNIET is 150/-.

IMPORTANT DATES:

Registration starts : 26/2/2019
Last Date of Registration : 28/2/2019

SCHEDULE:

Duration of course is 30 hrs, which will be covered in one week from 01/03/2019 to 06/03/2019. The schedule during the course is divided into Three sessions per day as follow:

Session 1 : 9:00 am To 1:30 am
Lunch Break : 1:30 pm To 2:00 pm
Session 2 : 2:00 pm To 4:00 pm

Mode :

Seminar HALL & ETC Lab

ELIGIBILITY

Students of ETC eligible to attend the training.

ABOUT THE COURSE

It is an add on course which helps the students to understand the concepts through hands-on lab sessions, examples and assignments on INTRODUCTION TO BASICS OF MECHATRONICS.

OBJECTIVE

The objectives of course are:

1. To make students familiar with Basics Of Mechatronics
2. To teach Students Basics Of Mechatronics
3. The course will also teach the students about the Mechatronics

OUR TRAINER

Mr. RAHUL MORE

Email Id: rahulmore@gmail.com

IMPORTANT NOTE

✓ All interested students should register before the last date of registration.



“ADD ON COURSE ON INTRODUCTION TO BASICS OF MECHATRONICS”

COURSE OBJECTIVES

The objectives of workshop are:

1. To provide participants basic concept and principles of mechatronics
2. Familiarize the students with components, sensors, actuators used in mechatronics system
3. Provides hands on experience on designing implementing and trouble shooting of the system
4. Understanding and control of the system and role of mechatronics.
5. Explore the application of mechatronics in various industries and domain

COURSE OUTCOME

After completing this Introduction to Basics of Mechatronics course students will able to

1. Participants will understand the nature of mechatronics and its role in modern Engineering services.
2. Identify and explain the key components, sensors and actuators of mechatronics system.
3. Apply fundamental Principles of electronics and control system to analyze and design the system
4. Design and Implement the basic mechatronics system by integrating mechanical, electronic and control components.
5. Troubleshoot and debug mechatronics system to identify and resolve issues effectively.

SYLLABUS

DURATION: 30 HOURS

Sr. No	Syllabus	No. of Hours
1	Introduction to Basics of Mechatronics	5 hours
2	Mechanical Systems in Mechatronics	5 hours
3	Electrical systems in Mechatronics	5 hours
4	Control Systems in Mechatronics	5 hours
5	Programming and software's in Mechatronics	5 hours
6	Sensors and actuators in Mechatronics	5 hours
	Total	30 Hours


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MCQ Test on Introduction to Basics of Mechatronics

Name of Student: _____

Q1. In a CNC machine, the punch tape reader is a:

- a. Input Device
- b. Feedback System
- c. Driving System
- d. Program

Q2. The motors that we use in a humanoid robot are known as:

- a. B-O motors
- b. Actuators
- c. Axis motors
- d. Orientation motors

Q3. The relative accuracy ratio for an observation that is taken by some distance measuring sensors that predict an object's distance to be 7.19cm, while the actual distance is equal to 7.02cm:

- a. 17:619
- b. 13:719
- c. 13:619
- d. 17:702

Q4. This fluid is used commonly as a reference in various U-tube manometers so that we can determine the pressure of a liquid:

- a. Argon
- b. Sodium
- c. Mercury
- d. Water

Q5. Which of these filters contain entirely passive elements?

- a. Optical filter
- b. Digital filter
- c. Electrical filter
- d. Mechanical filter

Q6. A typical low-end microcontroller can consist of how many bytes?

- a. 1000 bytes
- b. 300 bytes
- c. 500 bytes
- d. 100 bytes

Q7. We can control the Position and Speed in CNC using:

- a. graphic user interface
- b. feedback system
- c. machine code unit
- d. spindle and slide table

Q8. Which of these would detect the fault in an anti-lock brake system?

- a. Pump
- b. ECU
- c. Sensors
- d. Valves



Q9. What would the "12-point" indicate when we use the term 12 points reversible ratchet?

- a. The pitch is 12
- b. It consists of 12 teeth
- c. The radius is 12
- d. The diameter is 12

Q10. Which of these is NOT a type of stepper motor?

- a. Permanent magnet
- b. Variable reluctance
- c. Variable magnet
- d. Hybrid

Answers: 1:a, 2:b, 3:d, 4:c, 5:c, 6:a, 7:d, 8:b, 9: b, 10:c.



MCQ Test on Introduction to Basics of Mechatronics

Name of Student: Ritik Rokade

Q1. In a CNC machine, the punch tape reader is a:

- a. Input Device
- b. Feedback System
- c. Driving System
- d. Program

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- c. Sensors
- d. Valves

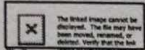
**ADD ON COURSE ON INTRODUCTION TO BASICS OF MECHATRONICS
EVALUATION FORM**

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.

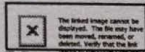
* Indicates required question

Student Name*



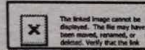
Your answer

Contact Number *



Your answer

Email Id



Your answer

1. Level of effort you put into the course*

- a) Poor
- b) Fair
- c) Satisfactory
- d) Very Good

2. Contribution of the course to your skill and knowledge*

- a) Poor
- b) Fair
- c) Satisfactory
- d) Very Good

3. Skill and responsiveness of the instructor*

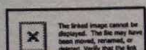
- a) Poor
- b) Fair
- c) Satisfactory
- d) Very Good

4. Course content was organized and well planned*

- a) Poor
- b) Fair
- c) Satisfactory
- d) Very Good

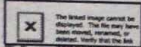
5. What aspects of this course were most useful or valuable?

*



Your answer

6. Any other comments or suggestions? Please share them below



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Your answer

Submit


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Feedback Analysis Total No. of Students: 18

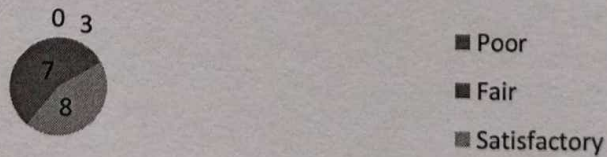
1. Level of effort you put into the course



2. Contribution of the course to your skill and knowledge



3. Skill and responsiveness of the instructor



4. Course content was organized and well planned

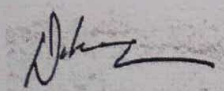


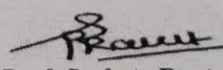
REPORT ON “ADD ON COURSE ON INTRODUCTION TO BASICS OF MECHATRONICS”

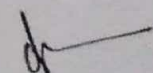
1	Course Title	“INTRODUCTION TO BASICS OF MECHATRONICS”
2	Course Schedule	01/03/2019 to 06/03/2019
3	Course Venue	Seminar room and Department of ETC
4	Name of Coordinator	Prof. Deepak Deshpande
5	No. Of students Participated	19
6	Course Objective	To provide participants basic concept and principles of mecharonics. Familiarize the students with components, sensors, actuators used in mechatronics system. Provides hands on experience on designing implementing and trouble shooting of the system. Understanding and control of the system and role of mechatronics. Explore the application of mechatronics in various industries and domain
7	Course Outcome	Participants will understand the nature of mechatronics and its role in modern Engineering services. Identify and explain the key components, sensors and actuators of mechatronics system. Apply fundamental Principles of electronics and control system to analyze and design the system. Design and Implement the basic mechatronics system by integrating mechanical, electronic and control components. Troubleshoot and debug mechatronics system to identify and resolve issues effectively.



Students Attended add on course on Introduction to Basics of Mechatronics from 01/03/2019 to 06/03/2019


Prof. Deepak Deshpande
Program Coordinator


Prof. Sucheta Raut
HOD, ETC
Head of Department
Electronics & Telecommunication Engg
Gniet Dahegaon Nagpur


Dr. Sanjeev Shrivastav
Principal GNIET

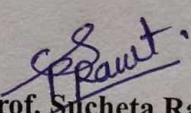

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Nagpur - 441501

Session 2018-2019

Date: 23/12/2018

NOTICE

All the Students of VI semester B.E. of Electronics & Telecommunication Engineering are hereby informed that department is organizing a short term course on “**ADD ON COURSE ON INTRODUCTION TO ROBOTICS**” from 26/12/2018 to /31/12/2018. 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 23rd to 25th Dec , 2018. For registration of the course contact the co-ordinator in Electronics & Telecommunication Department.


Prof. Sucheta Raut
HOD ETC

Head of Department
Electronics & Telecommunication Eng.
Griet Dahegaon Nagpur

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Six Day Workshop on

**“ADD ON COURSE ON
INTRODUCTION TO ROBOTICS”**

REGISTRATION FORM

Name: _____

Branch: _____

Roll No. : _____

Contact No. : _____

Email Id: _____

Signature of Applicant: _____

Date & Place: _____

Signature of Co-Orinator _____

Signature & Seal of HoD ETC

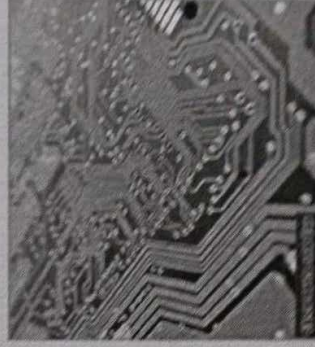
**GURU NANAK INSTITUTE
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TECHNOLOGY,
NAGPUR**



Course on

**“ADD ON COURSE ON
INTRODUCTION TO
ROBOTICS”**

**26/12/2018 TO
31/12/2018**



Organized by
**DEPARTMENT OF
ELECTRONICS and
TELECOMMUNICATION
ENGINEERING, GNIET,
NAGPUR**

PATRONS

Sardar Navneet Singh Tuli, CMD, GNI,
Nagpur

Mrs. Tanpreet Kaur Tuli, MD, GNI,
Nagpur

ADVISORY COMMITTEE

Dr. Shrivastava, Principal, GNIET, Nagpur

Mr. R. M. Bhombe, Vice Principal GNIET,
Nagpur

CO-ORDINATOR

Mr. Deepak Deshpande, Asst. Prof. ETC

Email Id: -deepaksir@gmail.com

ORGANIZING COMMITTEE

Ms. Deepak Deshpande, Asst. Prof. ETC Email

Id: deepaksir@gmail.com

Ms. Neha Chourasia Asst. Prof. ETC Email

Id: gnietc@gmail.com

Prof. Sucheta Raut HOD, ETC

ADDRESS FOR

CORRESPONDENCE:

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

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 to Mr. Deepak Deshpande, Asst. Prof. ETC.

REGISTRATION FEE:

Registration fees for students of GNIET are FREE.

IMPORTANT DATES:

Registration starts : 23/12/2018
Last Date of Registration : 25/12/2018

SCHEDULE:

Duration of course is 30 hrs, which will be covered in one week from 26/12/2018 to 31/12/2018. The schedule during the course is divided into Three sessions per day as follow:

Session 1 : 9:00 am To 1:30 am
Lunch Break : 1:30 pm To 2:00 pm
Session 2 : 2:00 pm To 4:00 pm

Mode :

Seminar HALL

ELIGIBILITY

Students of ETC are eligible to attend the training.

ABOUT THE COURSE

It is an add on course which helps the students to understand the concepts through hands-on lab sessions, examples on **Introduction To Robotics**.

OBJECTIVE

The objectives of course are:

1. To make students familiar with Robotics
2. To teach students to design Robot
3. The course will also teach the students about the Applications of Robotics

OUR TRAINER

Mr. KSHITIJ WAGH

Email Id: kshitijwagh00@gmail.com

IMPORTANT NOTE

✓ All interested students should register before the last date of registration .

ADD ON COURSE ON “INTRODUCTION TO ROBOTICS”

COURSE OBJECTIVES

The objectives of workshop are:

1. To provide participants with the fundamental understanding of Robotics.
2. Basic principals applications and components of Robots
3. This course aims to formalized participants with the field of robotics and lays the foundation for further study and practical applications in Robotics.

COURSE OUTCOME

After completing this Introduction to Robotics course

1. Participants will have a strong foundation in Robotics principals and concepts
2. They will pursue further studies or practical applications in robotics such as advancing to more specialized robotics courses
3. Apply their knowledge in industries that utilized robotics technology


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Nagpur - 441501

SYLLABUS OF ADD ON COURSE ON "INTRODUCTION TO ROBOTICS"

DURATION: 30 HOURS

Sr. No	Syllabus	No. of Hours
1	Introduction to Robotics, history growth, robotics applications manufacturing industries, Defence medical etc and laws of Robotics.	5 hours
2	Robot mechanism kinematics, coordinate transformation, DH parameters.	3 hours
3	Forward Kinematics and Inverse Kinematics	2 hours
4	Actuators, Dc motors, electrical motors, BLDC servo motors	3 hours
5	Sensors and Sensors Integration	3 hours
6	Control PWM Joint motion control and feedback control	2 hours
7	Computed Torque Control	2 hours
8	Perception, localisation and mapping	2 hours
9	Probabilistic robotics, path planning, BFS,DFS A-Star, D-Star, Voronoi, Potential field hybrid approaches	3 hours
10	Simultaneous localization and mapping	3 hours
11	Introduction to reinforcement learning	2 hours
Total		30 Hours

MCQ TEST ON ADD ON COURSE ON INTRODUCTION TO ROBOTICS

Name of Student: _____

Q1. Robot is derived from Czech word

- (A) Rabota
- (B) Robota
- (C) Rebota
- (D) Ribota

Q2. A Robot is a

- (A) Programmable
- (B) Multi-functional manipulator
- (C) Both (A) and (B)
- (D) None of the above

Q3. 14-The following drive is used for lighter class of Robot.

- (A) Pneumatic drive
- (B) Hydraulic drive
- (C) Electric drive
- (D) All of the above

Q4. The speed at which robot is capable of manipulating its end effector is known as the.

- (A) Velocity of robot
- (B) Maximum reach
- (C) Speed of movement
- (D) Load carrying capacity

Q.5 The capacity of robot to carry load is known as _____.

- (A) Load carrying capacity
- (B) Work envelope
- (C) Maximum reach
- (D) None of the above

Q.6 _____ is a collection of mechanical linkage connected by joints.

- (A) End effectors
- (B) Gripper
- (C) Sensor
- (D) Manipulator

Q.7 Sensors are the transducers that are used to _____.

- (A) Measure physical quantity
- (B) Hold the objects
- (C) Fix the objects
- (D) None of the above

Q.8 Which type of sensor is used to measure the distance between the vehicle and other objects in its environment:

- a. Ultrasonic sensor
- b. Tactile sensor
- c. Motion sensor
- d. None of these



Q.9 Which of the following is not application of Robotics?

- A. Industries
- B. Military
- C. Medicine
- D. Hills

Q10. _____ Sensors determines the relationship of the robot and its environment and the objects handled by it

- a. Internal State sensors
- b. External State sensors
- c. Both (A) and (B)
- d. None of the above

Answers: 1: b, 2:c, 3:a. 4:c, 5:a, 6: d, 7: a, 8:a, 9:d, 10: c.



Answer Sheet of Students:



MCQ TEST ON ADD ON COURSE ON INTRODUCTION TO ROBOTICS

Name of Student: Divya Chote.

Q1. Robot is derived from Czech word

- (A) Rabota
- (B) Robota
- (C) Rebota
- (D) Ribota

Q2. A Robot is a

- (A) Programmable
- (B) Multi-functional manipulator
- (C) Both (A) and (B)
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- (A) End effectors
- (B) Gripper
- (C) Sensor
- (D) Manipulator

Q7. Sensors are the transducers that are used to _____.

- (A) Measure physical quantity
- (B) Hold the objects
- (C) Fix the objects
- (D) None of the above

Q8. Which type of sensor is used to measure the distance between the vehicle and other objects in its environment:

- a. Ultrasonic sensor
- b. Tactile sensor
- c. Motion sensor
- d. None of these



FFEDBACK FORM ADD ON COURSE ON INTRODUCTION TO ROBOTICS

Add on Course evaluation Form on Introduction to Robotics

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

* Indicates required question

Student Name*

Your answer

Contact Number *

Your answer

Email Id

Your answer

1. Level of effort you put into the course*

- Poor
- Fair
- Satisfactory
- Very Good

2. Contribution of the course to your skill and knowledge*

- Poor
- Fair
- Satisfactory
- Very Good

3. Skill and responsiveness of the instructor*

- Poor
- Fair
- Satisfactory
- Very Good

4. Course content was organized and well planned*

- Poor
- Fair
- Satisfactory
- Very Good

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

Your answer

6. Any other comments or suggestions? Please share them below

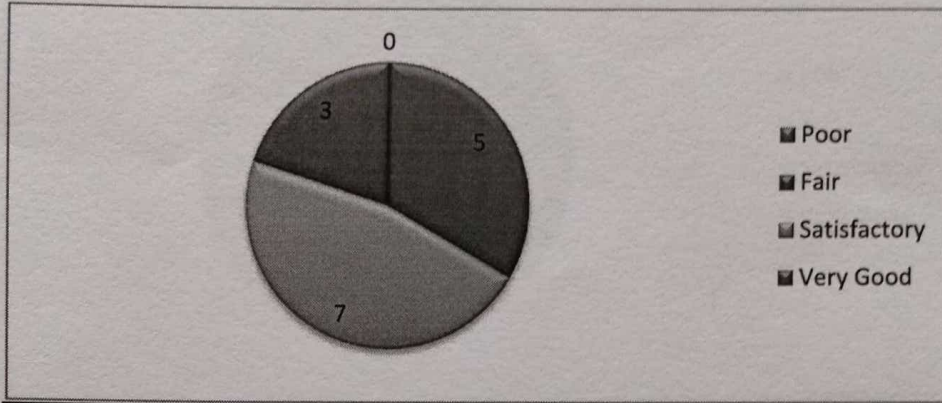
Your answer

Submit

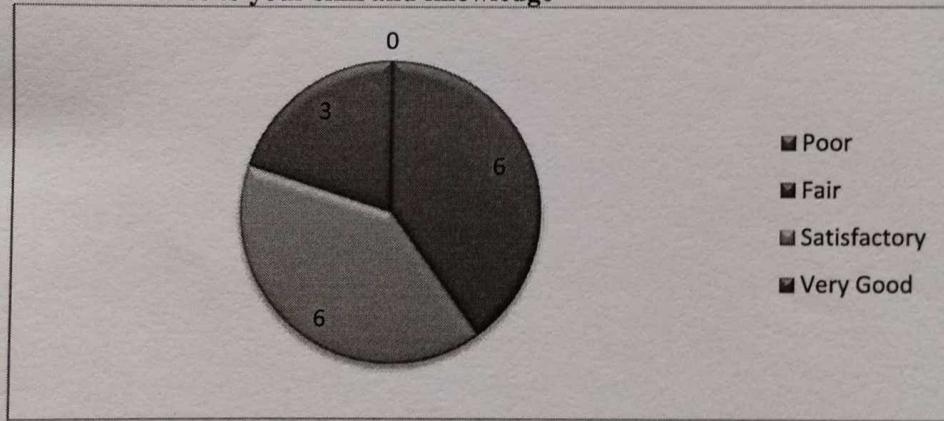
FEEDBACK ANALYSIS OF ADD ON COURSES ON "INTRODUCTION TO ROBOTICS"

Total No. of Students: 15

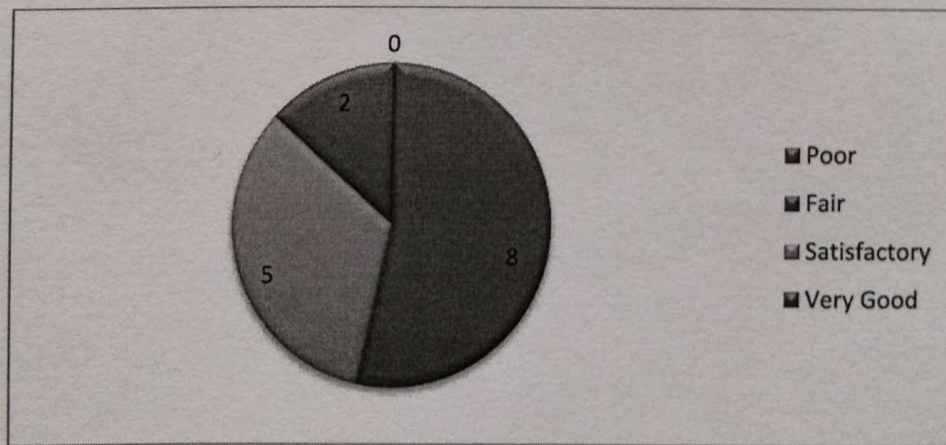
1. Level of effort you put into the course



2. Contribution of the course to your skill and knowledge

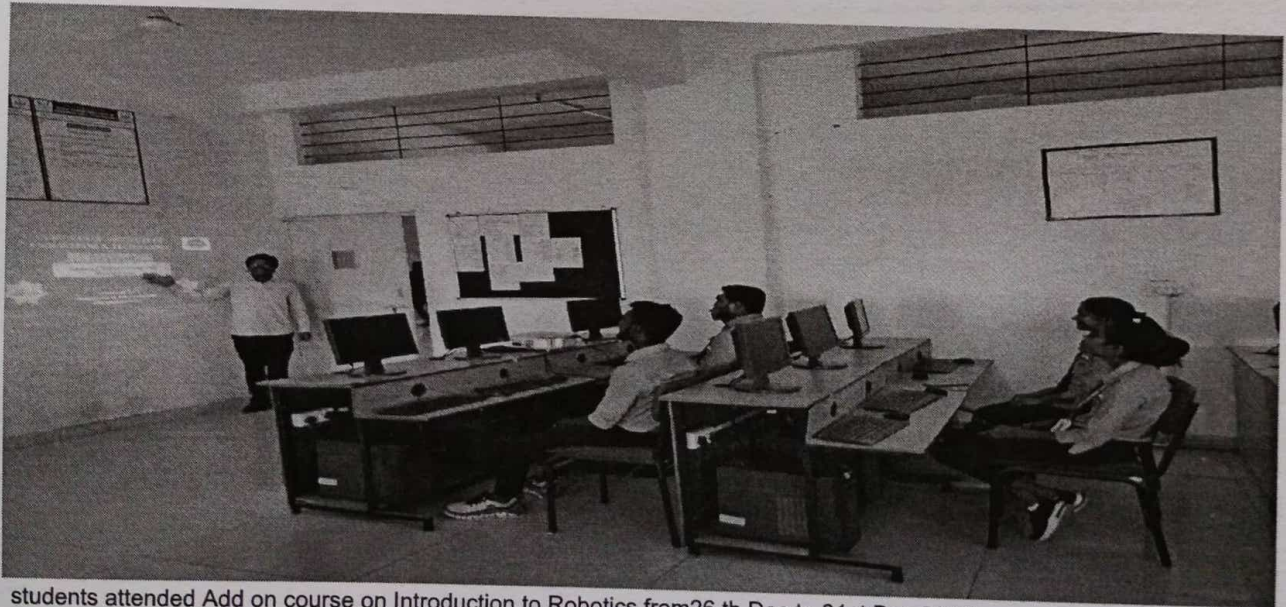


3. Skill and responsiveness of the instructor

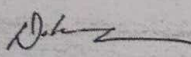


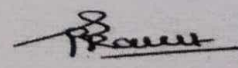
REPORT ON "ADD ON COURSE ON INTRODUCTION TO ROBOTICS"

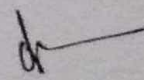

1	Course Title	"ADD ON COURSE ON INTRODUCTION TO ROBOTICS"
2	Course Schedule	26/12/2018 to 31/12/2018
3	Course Venue	Seminar room and Department of ETC
4	Name of Coordinator	Prof. Deepak Deshpande
5	No. Of students Participated	15
6	Course Objective	To provide participants with the fundamental understanding of Robotics. Basic principals applications and components of Robots This course aims to formalized participants with the field of robotics and lay the foundation for further study and practical applications in Robotics.
7	Course Outcome	Participants will have a strong foundation in Robotics principals and concepts. They will pursue further studies or practical applications in robotics such as advancing to more specialized robotics courses. Apply their knowledge in industries that utilized robotics technology



students attended Add on course on Introduction to Robotics from 26 th Dec to 31st Dec 2018


Prof. Deepak Deshpande
Program Coordinaor


Prof. Sucheta Raut
HOD, ETC
Head of Department
Electronics & Telecommunication Engg
Griet Dahegaon Nagpur


Dr. Sanjeev Shrivastav
Principal GNIET

Principal
Guru Nanak Institute of
Engineering & Technology
Nagpur - 441501



Session 2018-2019

Date:26/12/2018

NOTICE

All the Students of VI semester B.E. of Electrical Engineering are hereby informed that department is organizing a short term course on "**FUNDAMETALS OF ROBOTICS & AUTOMATION**" from 29/12/2018 to 02/01/2019. 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 26rd to 28th Dec , 2018. For registration of the course contact the co-ordinator in Electrical Department.

**Prof. Rajendra Bhombe
HOD EE**

Copy to:

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


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Nagpur - 441501**

Six Day Workshop on

**“ADD ON COURSE ON
FUNDAMENTALS OF ROBOTICS
& AUTOMATION”**

REGISTRATION FORM

Name: _____

Branch: _____

Roll No. : _____

Contact No. : _____

Email Id: _____

Signature of Applicant: _____

Date & Place: _____

Signature of Co-Orinator _____

Signature & Seal of HoD EE _____

PATRONS

Sardar Navneet Singh Tuli, CMD, GNI,
Nagpur

Mrs. Tanpreet Kaur Tuli, MD, GNI,
Nagpur

ADVISORY COMMITTEE

Dr. Shrivastava, Principal, GNIET, Nagpur

Mr. R. M. Bombe, Vice Principal GNIET,
Nagpur

CO-ORDINATOR

Mr. Akshay Pillewan, Asst. Prof. EE Email
Id: -akshu1712@gmail.com

ORGANIZING COMMITTEE

Mr. Akshay Pillewan, Asst. Prof. EE Email
Id: akshu1712@gmail.com

Ms. Diksha Khare Asst. Prof. EE Email
Id: gnietee@gmail.com

Prof. Rajendra Bombe HOD, EE

ADDRESS FOR

CORRESPONDENCE:

Department of Electrical Engineering Guru
Nanak Institute of Engg. & Tech.

Kalmeshwar Road, Near Radha Swami

Satsang, Dahegaon, Nagpur, Maharashtra
441501

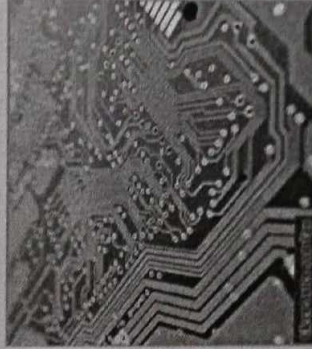
**GURU NANAK INSTITUTE
OF ENGINEERING &
TECHNOLOGY,
NAGPUR**



Course on

**“ADD ON COURSE ON
FUNDAMENTAL OF
ROBOTICS &
AUTOMATION”**

**29/12/2018 TO
02/01/2019**



Organized by
**DEPARTMENT OF
ELECTRICAL
ENGINEERING, GNIET,
NAGPUR**

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. Akshay Pillewan, Asst. Prof. EE .

REGISTRATION FEE:

Registration fees for students of GNIET are FREE.

IMPORTANT DATES:

Registration starts : 26/12/2018
Last Date of Registration : 29/12/2018

SCHEDULE:

Duration of course is 30 hrs, which will be covered in one week from 29/12/2018 to 02/01/2018. The schedule during the course is divided into Three sessions per day as follow:

Session 1 : 9:00 am To 1:30 am
Lunch Break : 1:30 pm To 2:00 pm
Session 2 : 2:00 pm To 4:00 pm

Mode :

Seminar HALL

ELIGIBILITY

Students of EE are eligible to attend the training.

ABOUT THE COURSE

It is an add on course which helps the students to understand the concepts through hands-on lab sessions, examples on **FUNDAMENTALS OF ROBOTICS & AUTOMATION** .

OBJECTIVE**The objectives of course are:**

1. To make students familiar with Robotics
2. To teach students to design Robot
3. The course will also teach the students about the Applications of Robotics

OUR TRAINER

Dr. Jitendra V. Tembburne

Email Id: jitendratembburne@gmail.com

IMPORTANT NOTE

✓ All interested students should register before the last date of registration .

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ADD ON COURSE ON FUNDAMETALS OF ROBOTICS & AUTOMATION

COURSE OBJECTIVES

The objectives of workshop are:

1. To provide participants with the fundamental understanding of Robotics.
2. Basic principals applications and components of Robots .
3. This course aims to formalized participants with the field of robotics and lay the foundation for further study and practical applications in Robotics.

COURSE OUTCOME

After completing this Fundamentals of Robotics & Automation course

1. Participants will have a strong foundation in Robotics principals and concepts.
2. They will pursue further studies or practical applications in robotics such as advancing to more specialized robotics courses.
3. Apply their knowledge in industries that utilized robotics technology.


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SYLLABUS

DURATION: 30 HOURS

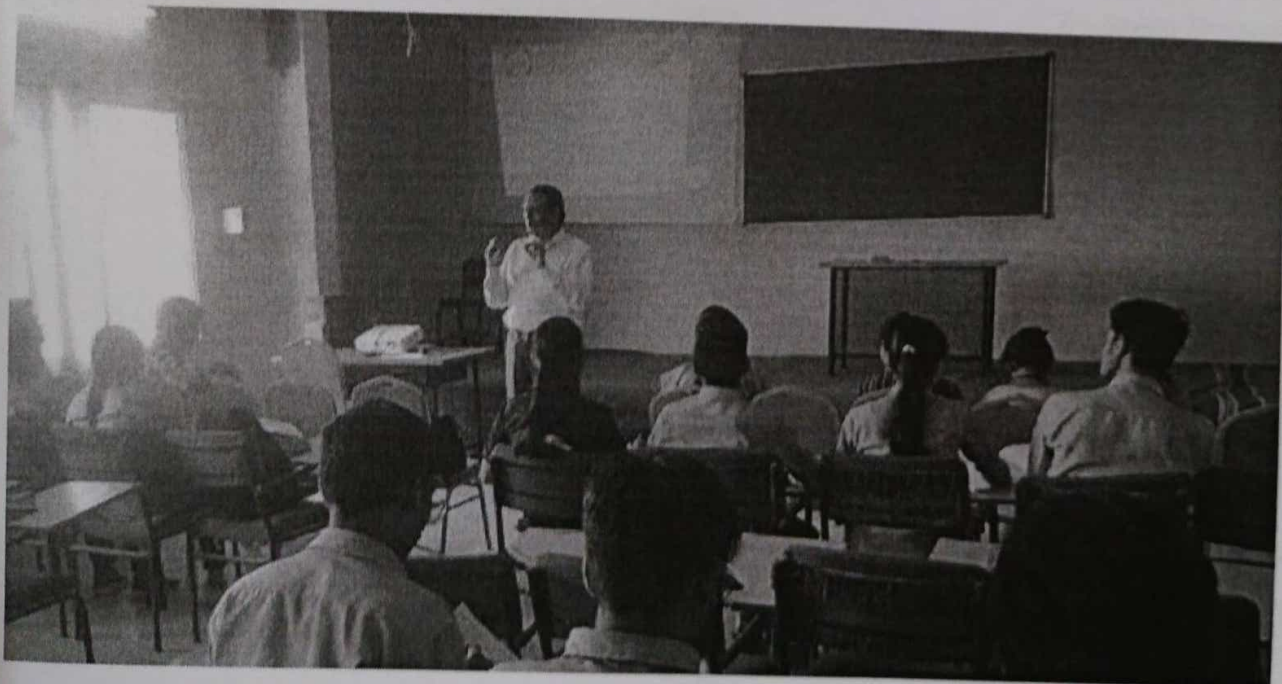
Sr. No	Syllabus	No. of Hours
1	Introduction to Robotics, history growth, robotics applications manufacturing industries, Defence medical etc and laws of Robotics.	5 hours
2	Robot mechanism kinematics, coordinate transformation, DH parameters.	3 hours
3	Forward Kinematics and Inverse Kinematics	2 hours
4	Actuators, Dc motors, electrical motors, BLDC servo motors	3 hours
5	Sensors and Sensors Integration	3 hours
6	Control PWM Joint motion control and feedback control	2 hours
7	Computed Torque Control	2 hours
8	Perception, localisation and mapping	2 hours
9	Probabilistic robotics, path planning, BFS,DFS A-Star, D-Star, Voronoi, Potential field hybrid approaches	3 hours
10	Simultaneous localization and mapping	3 hours
11	Introduction to reinforcement learning	2 hours
Total		30 Hours

2

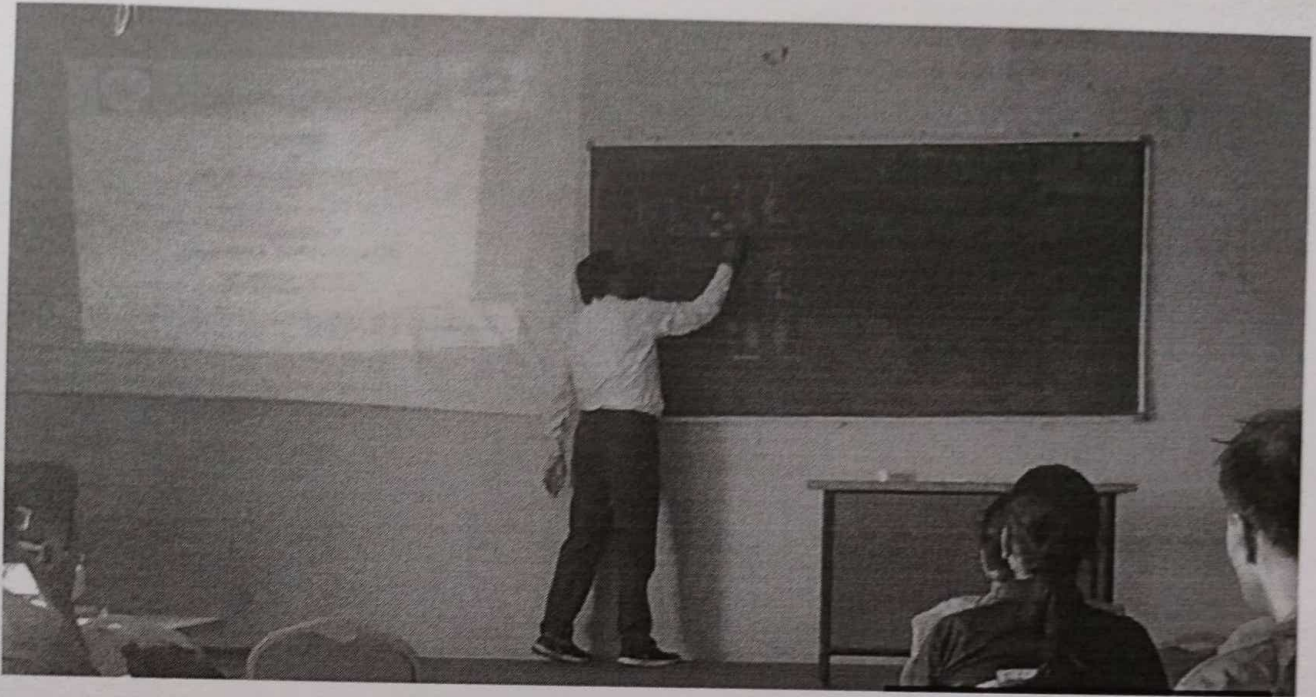
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REPORT ON "ADD ON COURSE ON FUNDAMETALS OF ROBOTICS & AUTOMATION"

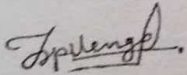
1	Course Title	"FUNDAMETALS OF ROBOTICS & AUTOMATION"
2	Course Schedule	29/12/2018 to 02/01/2019
3	Course Venue	Seminar room and Department of EE
4	Name of Coordinator	Prof. Akshay Pillewan
5	No. Of students Participated	35
6	Course Objective	To provide participants with the fundamental understanding of Robotics. Basic principals applications and components of Robots This course aims to formalized participants with the field of robotics and lay the foundation for further study and practical applications in Robotics.
7	Course Outcome	Participants will have a strong foundation in Robotics principals and concepts. They will pursue further studies or practical applications in robotics such as advancing to more specialized robotics courses. Apply their knowledge in industries that utilized robotics technology



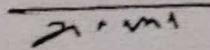
Add on Course on Fundamentals of Robotics and Automation on 29/12/2018



Students and Trainer at Add on Course on Dated 02/01/2019



Prof. Akshay Pillewan
Program Coordinaor



Prof. Rajendra Bhombe
HOD, EE



Dr. Sanjay Shriastav
Principal GNIET


Principal
Guru Nanak Institute of
Engineering & Technology
Nagpur - 441501

GURU NANAK INSTITUTE OF ENGINEERING & TECHNOLOGY
Dahegaon, Kalmeshwar Road, Nagpur-441 501
DEPARTMENT ELECTRICAL ENGINEERING

Session 2018-2019

Date:03/01/2019

FUNDAMENTALS OF ROBOTICS & AUTOMATION

MCQ

Name of Student:-.....

1. The basic components of robot are:
 - a) The mechanical linkage
 - b) Sensors and controllers
 - c) User interface and power conversion unit
 - d) All of the mentioned

2. A _____ is connection between parts or links in a robot that allow motion.
 - a) Hinge
 - b) Joint
 - c) Dis joint
 - d) None of the mentioned

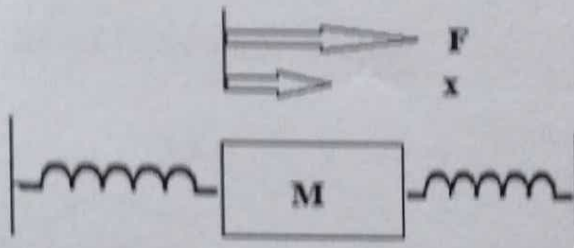
3. The laws of Robotics are:
 - a) A robot may not injure a human being
 - b) A robot must obey the order given by human except when conflict with the first law
 - c) A robot must protect its own existence except when it is violating first and second law
 - d) Both b and c

4. The laws of Robotics are:
 - a) A robot may not injure a human being
 - b) A robot must obey the order given by human except when conflict with the first law
 - c) A robot must protect its own existence except when it is violating first and second law
 - d) Both b and c

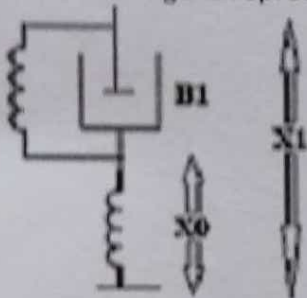
5. Non servo robots are also called as:
 - a) Pick and place
 - b) Fixed stop robot
 - c) Both of the mentioned
 - d) None of the mentioned

6. Characteristics of non-servo robot are:
 - a) Relatively inexpensive compared to servo robots
 - b) Simple, understand and operate
 - c) Precise and reliable
 - d) Open loop system

7. Consider a simple mass spring friction system as given in the figure K_1 , K_2 are spring constants f -friction, M -Mass, F -Force, x -Displacement. The transfer function $X(s)/F(s)$ of the given system will be :



- a) $1/(Ms^2+fs+K_1.K_2)$
 b) $1/(Ms^2+fs+K_1+K_2)$
 c) $1/(Ms^2+fs+K_1.K_2/K_1+K_2)$
 d) $K_2/(Ms^2+fs+K_1)$
8. A synchro Transmitter is used with control transformer for:
- a) Feedback
 b) Amplification
 c) Error detection
 d) Remote sensing
9. The below figure represents:



- a) Lead network
 b) Lag network
 c) PI controller
 d) PD controller
10. Backlash in a stable control system may cause:
- a) Under damping
 b) Over damping
 c) High level oscillations
 d) Low level oscillations



Date: 15/06/2018

NOTICE

MBA (18-19)

All the Students of Management are here by informed that, Department of Management is organising Ten days Online programme on "Certificate course in Accounting" from 23/06/2018 to 03/07/2018 from 11:00 A.M to 3:00 P.M

All the interested students of Management must register for the same before 03/07/2018.
For Registration contact Prof. Rajendra Katole Coordinator, Department of Management studies.

J. gidwani

Dr. Jaspal Gidwani

HOD,DMS

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- 3) Head T& P

10 Days Online Programme on
"Certificate course in Accounting"
(23rd June to
3rd July 2018)

Registration Form

Name: _____
Designation: _____
Organization: _____
Address: _____

Phone: _____
Mob: _____
Email: _____
Amount (Cash): _____
Place _____
Date _____
Signature of Participant _____

ORGANIZING COMMITTEE

PATRONS

- ❖ S. Navneet Singh Tuli, C.M.D, GNI
- ❖ Mrs. Tanspreet Kaur Tuli, M.D, GNI

ADVISORS

- ❖ Dr. Sanjeev Shrivastava, Principal, GNIET

- ❖ Dr. Jaspal Gidwani HOD, GNIET

CONVENER

- ❖ Dr. Roshni Halmare
Dean (Research & Development)

CO-ORDINATION COMMITTEE

- ❖ Dr. Jaspal Gidwani
- ❖ Dr. Pravin Bhise
- ❖ Mr. Rajendra Katole



Guru Nanak Institute of Engineering and
Management, Nagpur



10 Days Online Programme on
"Certificate course in Accounting"

(23rd June to
3rd July 2018)
Organized by

DEPARTMENT OF MANAGEMENT
STUDIES



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Guru Nanak Institute of
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Nagpur - 441501

Developing disciplined attitude required to become an Accountant.

03/07/2018 Online Certificate presentation & Valedictory Program

About college:

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 other facilities to enhance quality of teaching learning process.

About Certificate Program:

The Objectives of the course are:

Exposure to environments under which different organizations work;

Providing on-job experience of practical aspects of Accounting;

Highlights:

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

Registration Fees: Rs. 1,500 per participant

Resource Persons:

- Dr. Jaspal Gidwani
HOD, GNIET

Venue
Online Mode (Google Meet)

GNI Campus
Dahegaon, Kalmeshwar Road, Nagpur.
441501 Maharashtra India
Ph: 071118-661450

For Whom:

- Management Students

For any query please cont:

- ❖ Dr. Jaspal Gidwani
- ❖ Dr. Pravin Bhise
- ❖ Mr. Rajendra Katole

Schedule:-

(23rd June to
3rd July 2018)

23/06/2018 -11.00 am - 12.15 pm

Online Inauguration

23/06/2018 to 03/07/2018

1st p.m. - 4.00 p.m. Online Sessions

COURSE CONTENTS

CERTIFICATE COURSE ON FINANCIAL ACCOUNTING

COURSE OBJECTIVES

The objectives of this course are:

1. To provide an opportunity for students to enrich their knowledge in the area of Financial accounting.
2. This course will provide a vibrant opportunity for students in the recruitment phase and to enhance their accounting skills.
3. This course is based on hands-on exercises and is focused on added advantage for students who can select their niche areas in financial sectors, taxation etc.
4. Know the principles and practices of international and national accounting, Indian economy so that that this knowledge can be applied in practical economic development.

SYLLABUS

Duration : 60 hours

Module I –Introduction to Accounting: Introduction of financial accounting, Importance, Objectives and Principles of Accounting, Concepts and conventions, and The Generally Accepted Accounting Principles (GAAP). (8 Hours)

Module II – Introduction of Accounting Process- Journal and ledger, Trial Balance, Classification of capital and revenue expenses, preparation of subsidiary books and cash book. Reconciliation between bank pass book and cash book. (12 Hours)

Module III –Final Accounts of Joint Stock Companies –Preparation of Trading and Manufacturing, Profit and Loss Account, Profit and Loss Appropriation Account and Balance sheet with adjustments as per Schedule III of the Companies Act, 2013, Provisions for Statutory Audit. (15 Hours)

Module IV – Analysis of financial Statement – I: Techniques of Financial statement Analysis - Common size statement, Trend Analysis, Inter Firm Comparison, Intra Firm Comparison, Du-Pont Analysis. (10 Hours)

Module V – Analysis of financial Statement – II: Introduction, Assessment of Business Performance through Ratio Analysis: Concept of Ratio, significance of ratio analysis, Interpretation of financial Performance using ratio. Profitability Ratio, Liquidity Ratio, Solvency Ratio, Activity Ratio & Efficiency Ratio. (15 Hours)

COURSE OUTCOMES :

After attending this course program, students will be able to

1. Understand fundamentals of Financial Accounting.
2. Have the ability to write basic accounting formulas and accounting terminologies.
3. Use the measurement, valuation and accounting estimates.
4. Have awareness about the important environments under which the organizations work.
5. Develop disciplined attitude required to become an accountant.

Text Books

1. Dr.S.N. Maheshwari and Dr.S.K. Maheshwari, "Financial Accounting", Vikas, 10 th Edition.
2. Ambrish Gupta: "Financial Accounting Management an Analytical Perspective", Pearson Education-2009.
3. Sehgal, "Accounts for Management", , Taxmann Publication Pvt. Ltd.
4. Rustagi, "Management Accounting", , Taxmann Publication Pvt. Ltd

Reference Books:

1. Cost Accounting: Texts and Problems, M C Shukla, T S Grewal, Dr. M P Gupta, Revised Edition, S Chand & Company, ISBN-1 978-8121919630.
2. Cost Accounting, RSN Pillai, V. Bagawathi, , Revised Edition, S Chand & Company, ISBN-1 978-8121904933

J. gidwani

Dr.Jaspal Gidwani
HOD,DMS

Course outcome after attending this course program, students were be able to :

1. Understand fundamentals of Financial Accounting.
2. Have the ability to write basic accounting formulas and accounting terminologies.
3. Use the measurement, valuation and accounting estimates.

Total 60 students have participated in this programme and completed the course successfully.

All the students really appreciated the contents that were discussed, they realized that interactions like these can help them improve their learning.

Students have expressed their keen interest in attending more such online courses like this in future.

J. gidwani

Dr. Jaspal Gidwani
HOD,DMS

Date: 10/07/2018

Report on Certificate course in Accounting

The Department of Management Studie had organized Ten days online programme on Certificate course in Accounting from 23/06/2018 to 03/07/2018.

The objectives of the course were successfully met :

- Providing on-job experience of practical aspects of Accounting
- Developing disciplined attitude required to become an Accountant.
- Providing an opportunity for students to enrich their knowledge in the area of Financial accounting.
- This course provided a vibrant opportunity for students in the recruitment phase and to enhance their accounting skills.
- This course allowed on hands-on exercises and is focused on added advantage for students who can select their niche areas in financial sectors, taxation etc.
- Students came to know the principles and practices of international and national accounting, Indian economy so that that this knowledge can be applied in practical economic development.

The Accounting Certificate Course were Divided into 3 Modules :

1. Process of Accounting,
2. Basic Accounting Formulas
3. Accounting Terminologies

This included Capital and Revenue transactions- capital and revenue expenditures, capital Measurement and Bank Reconciliation Statement.


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