TEQIP III SPONSORED

Five-Day Workshop on
"Automation in Mechanical Engineering"

Organized By
Department of Mechanical Engineering
Muzaffarpur Institute of Technology,
Muzaffarpur
BIHAR-842003

Date: 2ⁿᵈ Sep to 6ᵗʰ Sep, 2019

ABOUT THE COLLEGE

M.I.T.Muzaffarpur came into existence on 25th September 1954, just seven years after independence of India. The institute is under administrative control of Department Of Science and Technology, Government Of Bihar. MIT Muzaffarpur is an AICTE approved institution and affliated to Aryabhatta Knowledge University, Patna.

ABOUT THE DEPARTMENT

Mechanical Engineering Department is one of the leading department of MIT Muzaffarpur. The presence of well-equipped laboratories and highly qualified faculties makes it one of the best Centre for mechanical engineering. Currently department offers four year undergraduate programs and two year postgraduate program in machine design and thermal engineering.

COURSE OBJECTIVES

- Automation in Thermal Power Plant
- Application of Programmable Logic Control (PLC) in Machines
- Automation in Production Engineering
- Automation in High Power Engine (BHP more the 950) used in Mining machinery
- A primer on Bio-inspired Mobile Robotics
- Under water Robotics and Robotic motion simulation.
- Automation in Valves used in Chemical Industry
- Electric Vehicles
- Hydraulic and Pneumatic System
- Fluid Automatic System

- Economic Perspective of Automation
- Components of Automation

WHO CAN ATTEND?

All existing faculty Members, undergraduate students of 2016 and 2017 Batch and postgraduate students of 2018 Batch of Mechanical Engineering Department.

GENERAL INSTRUCTIONS

- A certificate of participation will be presented to all the participants.
- The total participations is limited to 80 members. The participants will be selected on "First-Come-First-Served" basis out of the eligible applicants.

HOW TO APPLY?

Fill the registration form and submit it to the contact person (Mr. Santosh Kumar, Assistant professor Mechanical Engineering Department) or send it to santosh@mitmuzaffarpur.org

IMPORTANT DATES:

Last date of Registration: 31ˢᵗ August 2019
Course Period: 2ⁿᵈ Sep to 6ᵗʰ Sep, 2019

VENUE: Department of Mechanical Engineering, Main Building, MIT Muzaffarpur

RESOURSE PERSONS

Mr. Vikram Raj
B.Sc. Engineering in mechanical from MIT
Muzaffarpur in 2010
Manager in NTPC Barh.

Dr. Atul Thakur
B.E from University of Mumbai (2003)
M.Tech from IIT Bombay, Mumbai (2006)
Ph.D from University of Maryland, College Park
Assistant professor in IIT Patna
He has past experience of Design Engineer in GE.
He has various journal Publications and Awards from
Different Agency like ASME, Elsevier, NSF USA and
General Electric, Bangalore Technology center.

Mr. Sanjay Kumar
Ex. General manager/HOD Coal India.
FIE Chartered engineer (Mechanical), Visiting faculty
at IICM, BIT & IIM Ranchi

Mr. Arjun Kumar
B. Tech -NIT Patna
IES Officer in Rail wheel plant Bela

Mr. Md. Irshad Alam
Assistant Professor, MED, MIT Muzaffarpur
M.Tech from IIT Kanpur
He has an experience of 4.5 years in Stress
analysis using CaesarII Software in TATA
CONSULTING ENGINEERS LIMITED(TCE).
He has worked in International Projects of SABIC
(Saudi Arabian Basic Industries Corporation) in
TCE.
1.5 years teaching experience

Mr. Gulshan Kumar
Assistant Professor, MED, MIT Muzaffarpur
MME from Jadavpur University
6 years teaching experience

Mr. Ankit Kumr
Assistant Professor, MED, MIT Muzaffarpur
M.Tech from IIT(ISM) Dhanbad.

Mr. Niteesh Kumar Dubey
Assistant Professor, MED, MIT Muzaffarpur
M.Tech from IIT Ropar
He has an experience of Design Engineering at
Oceaneering International Services Ltd.

Dr. S.S Prashad
Associate Professor, MED, MIT Muzaffarpur
M.Tech from IIT Delhi
Ph.D. from IIT Delhi
34 years teaching experience

Mr. Irfan Haider
Assistant Professor, MED, MIT Muzaffarpur
M.Tech from AMU, Aligarh
6 years teaching experience

ORGANISING COMMITTEE

Patron-in Chief	Dr. J. N. Jha Principal, MIT Muzaffarpur
Patron	Dr. Vikash Kumar HOD, MED, MIT Muzaffarpur
Co-Patron	Mr. Ashish Kumar TEQIP – III, Co-Ordinator

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Convener
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Coordinators:

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Mr. Amit Kumar
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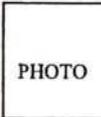Mr. Niteesh Kumar Dubey
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APPLICATION FOR REGISTRATION
Application for Five-Day Workshop on
"Automation in Mechanical Engineering"

2nd Sep to 6th Sep, 2019

PHOTO

1. Name............................

2.
a) Age.......

b) Sex: M/F.......

3. Designation....................

4. Organization....................

5. Address for Correspondence
....
....
....
....

E-mail: ....

Phone/Mobile: ....

6. Highest Academic
qualification..
....
....

7. Specialization...

8. Experience (in years)

   a) Teaching: ....

   b) Industrial: ....

Date..........

Place.........

Signature of Applicant

Signature of principal/Head of Institution

Note: Please note that 100% attendance is compulsory in the course.

Muzaffarpur Institute of Technology,
Muzaffarpur-842003
(Under the Department of Science & Technology Govt. of Bihar, Patna)

Workshop on

"Automation in Mechanical Engineering"

2nd Sep to 6th Sep, 2019

SCHEDULE

Date/Day	10.00-11.00 a.m.	11.00-11.30 a.m.	11.30a.m.-01.00 p.m.	01.00-2.00 p.m.	2.00-4.00 p.m.	4.00-4.30 p.m.
02.09.2019 Monday	REGISTRATION (9.00-10.00) & INAUGRATION	TEA	Automation in Thermal Power plant (Mr. Vikram Raj)	LUNCH BREAK	Automation in Thermal Power plant (Mr. Vikram Raj)	TEA
03.09.2019 Tuesday	Components of automation (Dr. S.S Prashad)		Automation in Production Engineering (Mr. Arjun Kumar)		Application of PLC in Machines (Mr. Arjun Kumar)	
04.09.2019 Wednesday	Fluid automatic system (Mr. Niteesh Kumar Dubey)		Automation in Valves used in Chemical Industry (Mr. Md. Irshad Alam)		Introduction to Electric Vehicle (Mr. Ankit Kumar)	
05.09.2019 Thursday	Hydraulic and Pneumatic system (Mr. Gulshan Kumar)		Economic Perspective of Automation (Mr. Irfan Haider)		Automation in High Power Engine used in Mining machinery (Mr. Sanjay Kumar)	
06.09.2019 Friday	A Primer on Bio-inspired Mobile Robotics (Mr. Atul Thakur)		Under water Robotics & Robot motion simulation (Mr. Atul Thakur)		LEARNING EVALUATION AND VALEDICTORY FUNCTION	

Participants

Sl No.	Name	Semester	Roll No.
1	Anjali Gupta	B.Tech (5th Sem)	17M27
2	Harsh Raj	B.Tech (5th Sem)	17M60
3	DEEPAK KUMAR	B.Tech (5th Sem)	18(LE)M10
4	Rohit Ranjan	B.Tech (5th Sem)	17M59
5	Saurav Kumar	B.Tech (5th Sem)	17M19
6	Mayank Gautam	B.Tech (5th Sem)	17M41
7	VIKRAM KUMAR	B.Tech (5th Sem)	18(LE)M12
8	Sonu kumar	B.Tech (7th Sem)	16M63
9	Anilesh kumar	B.Tech (5th Sem)	18(LE)M07
10	Dheeraj Kumar	B.Tech (5th Sem)	17M05
11	Mohit Raj	B.Tech (5th Sem)	17M63
12	KRISHNA KUMAR	B.Tech (7th Sem)	16M71
13	Narendra Kumar kamat	B.Tech (5th Sem)	17M10
14	Prashant Kumar	B.Tech (5th Sem)	17M38
15	Veer kumar	B.Tech (5th Sem)	17M35
16	Abhishek Anand	B.Tech (7th Sem)	16M12
17	Nandan kumar	B.Tech (7th Sem)	16M65
18	Raman Mahto Anand	B.Tech (5th Sem)	17M42
19	Lalan kumar	B.Tech (7th Sem)	16M56
20	Prabhakar pandey	B.Tech (5th Sem)	17M14
21	Mithun Kumar	B.Tech (7th Sem)	16M22
22	Subhash Kumar	B.Tech (5th Sem)	18(LE)M01
23	PAWAN KUMAR	B.Tech (5th Sem)	18(LE)M02
24	Aniket kumar	B.Tech (5th Sem)	17M17
25	Priti kumari	B.Tech (5th Sem)	17M45
26	Priya Rana	B.Tech (5th Sem)	17M58
27	Ritesh Prasad	B.Tech (5th Sem)	18(LE)M05
28	RAKESH RAM	B.Tech (7th Sem)	17(LE)M11
29	Shatrudhan kumar	B.Tech (7th Sem)	16M23
30	Rahul Kumar	B.Tech (5th Sem)	17M08
31	Shatrunjay kumar	B.Tech (5th Sem)	17M52

32	Salif khan	B.Tech (5th Sem)	17M57
33	Santosh kumar	B.Tech (5th Sem)	17M37
34	Rahul kumar	B.Tech (5th Sem)	17M49
35	SATISH KUMAR	B.Tech (5th Sem)	17M09
36	Shivam sagar	B.Tech (5th Sem)	17M33
37	MD AKRAM ALAM	B.Tech (7th Sem)	16M02
38	AYUSHI DIVYA	B.Tech (5th Sem)	17(M)40
39	AJIT KUMAR	B.Tech (5th Sem)	17M30
40	Kishan Raj	B.Tech (5th Sem)	17M43
41	RAUSHAN SINGH	B.Tech (5th Sem)	18(LE)M03
42	Nand kishor Bharti	B.Tech (5th Sem)	17M54
43	Ajay Kumar	B.Tech (5th Sem)	17M28
44	Ritish Kumar	B.Tech (5th Sem)	17M56
45	NITISH KUMAR	B.Tech (5th Sem)	17M34
46	Manjeet Raj	B.Tech (5th Sem)	17M26
47	Sourav Kumar	M.Tech (3rd Sem)	18MM18
48	RAJ KUMAR	B.Tech (5th Sem)	17M23
49	Raushan Kumar	B.Tech (7th Sem)	16M41
50	Vishal Kumar	B.Tech (7th Sem)	16M27
51	Raushan Kumar	B.Tech (7th Sem)	16M43
52	Shivam	B.Tech (5th Sem)	17M04
53	Chandan Kumar	B.Tech (5th Sem)	17M55
54	ASHUTOSH KUMAR JHA	B.Tech (7th Sem)	16M67
55	MD ZISHAN	M.Tech (3rd Sem)	18MM07
56	Abhimanyu kumar	B.Tech (5th Sem)	17M29
57	BIRENDRA KUMAR PANDIT	B.Tech (5th Sem)	17M36
58	Ashutosh sinha	B.Tech (7th Sem)	16M72
59	Ashutosh Kumar	B.Tech (7th Sem)	16M11
60	RAVI RAUSHAN KUMAR	M.Tech (3rd Sem)	18MM02
61	Sumit Kumar Thakur	B.Tech (5th Sem)	17M03
62	Nishant Kiran	B.Tech (7th Sem)	15M44
63	Nidhi Kumari Gupta	B.Tech (7th Sem)	16M49
64	Rajhans kumar	B.Tech (7th Sem)	16M20
65	Rajanish kumar sharma	B.Tech (5th Sem)	17M44
66	Saurav Kumar	B.Tech (5th Sem)	17M53
67	Sanjay Kumar	M.Tech (3rd Sem)	18MM11
68	SUNIL PUSHPAM	B.Tech (5th Sem)	17M62
69	Amar Kumar Rishi Dev	B.Tech (5th Sem)	17M48
70	Vikram Kumar Choudhary	B.Tech (5th Sem)	18(LE)M11
71	Rahul Kumar	B.Tech (5th Sem)	17M31

72	Rupesh Kumar	B.Tech (7th Sem)	16M40
73	Sudhanshu Kumar Sharma	B.Tech (7th Sem)	17(LE)M03
74	SURENDRA KUMAR	B.Tech (7th Sem)	16M15
75	Shivangi	B.Tech (7th Sem)	16M68
76	Saubhik Kumar Mahto	B.Tech (5th Sem)	17M12
77	Gaurav Kumar	B.Tech (5th Sem)	17M50
78	Gaurav Kumar Roy	M.Tech (3rd Sem)	18MM16
79	Shubham Kumar	B.Tech (5th Sem)	17M46

80. VIVEK Kumar B.Tech (7th sem) 16M59,

Student Coordinators cum Partici[

Sl No.	Name	Semester	Roll No.
1	Himanshu Kumar	B.Tech (5th Sem)	17M16
2	SUDHANSHU RANJAN	B.Tech (5th Sem)	17M25
3	Abhimanyu kumar	B.Tech (5th Sem)	17M24
4	Pratyush Chandra	B.Tech (5th Sem)	17M15
5	Keshav kumar	B.Tech (5th Sem)	17M02
6	Ayush Kumar	B.Tech (5th Sem)	17M18
7	Hridayesh Tejas Jha	B.Tech (5th Sem)	17M22
8	Himanshu Kumar	B.Tech (5th Sem)	17M01
9	VISHWANATH KUMAR	B.Tech (7th Sem)	16M34
10	Sandeep Rahul	B.Tech (7th Sem)	16M51

Student Coordinators

Sl No.	Name	Semester	Roll No.
1	Ravi Ranjan Kumar	B.Tech (3rd Sem)	18M40
2	Ankush Kumar	B.Tech (3rd Sem)	18M08

Muzaffarpur Institute of technology, Muzaffarpur

Workshop on'Automation in Mechanical Engineering'between 2nd to 6th September 2019

Learning Evaluation

Date-06/09/2019
Test Duration- 10 minutes

Instructions

1. Every question carries 1 mark.
2. 0.25 marks will be deducted for each wrong answer.

Details of participant

Name- SANTOSH KUMAR
Roll No.- 17M37

Q1. Which of the following valves are linear motion valves?

a. Gate valve, Ball valve & Butterfly valve
b. Globe valve, Diaphragm valve & Butterfly valve
c. Gate Valve, Globe valve & Diaphragm valve
d. None of above

Q2. Which type of valve end connection is required in case of zero leakage is requirement for environmental safety?

a. Welded ends
b. Flanged ends
c. Threaded ends
d. All of above

Q3. Valve selection criteria is based on:

a. Type of fluid
b. Operating condition
c. Flow consideration
d. All of above

Q4. Choose the correct statement

a. Valve actuator is operated manually only
b. Valve actuator is operated automatically only
c. Valve actuator may be operated manually or automatically
d. None of the above

Q5. Which is the part of Motor Control valve?

a. Motor & Gear
b. Potentiometer
c. Wiper Arm
d. All of the above

Q6. Energy in a parallel hybrid electric vehicle is generated by the help of

a. IC Engine
b. Battery
c. Both a & b
d. None of the above.

Q7. Which of the following vehicle has both off board and on board battery charging facility?

a) Electric Vehicle
b) Hybrid Electric Vehicle
c) Plug in Hybrid E V
d) All of the above

Q8. Critical Reynolds Number for micro channel is

a) 500
b) 800
c) 1200
d) 1800

Q9. Nusselt number in case of micro channels with respect to normal channels is

a) High
b) Low
c) Same
d) Insufficient Data

Q10. When was the first package of hydraulic system developed by United States?

a) 1926
b) 1927
c) 1936
d) 1923

Q11. In Hydraulic circuit pressure is converted into Mechanical force or useful work by

    a) Electric Motor
    b) Directional valve
    c) Pressure relief valve
    d) Actuator

Q12. Energy losses during transmission in Electric Vehicle will be _____ as compared to IC Engine Vehicle

    a) More
    b) less
    c) same
    d) Insufficient data

Q13. The advantages of CNC machining is

    a) Faster manufacturing
    b) Skill required is low
    c) Lower investment in equipment costs
    d) All of the above

Q14. Which of these is used as storage device in NC machines?

    a) C D Drive
    b) Punched Tape
    c) DVD
    d) All of the above

Q15. What is the function of the preparatory function code G02?

    a) Circular Interpolation, Clockwise
    b) Circular Interpolation, Counter Clockwise
    c) Dwell
    d) Linear Interpolation

11.(d)

ANSWERS

1. (c)
2. (a)
3. (d)
4. (c)
5. (d)
6. (c)
7. (b) ✗
8. (a)
9. (a)
10.
11. (d)
12. (b)
13. (a)
14. (b)
15. (a)

No. of correct answers: 13
No. of wrong answers: 1

Marks obtained: 12.75 / 15

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MUZAFFARPUR INSTITUTE OF TECHNOLOGY
MUZAFFARPUR
(under Department of science and Technology, Govt. of Bihar)
Muzaffarpur-842003, Bihar, India
DEPARTMENT OF MECHANICAL ENGINEERING

Five-day Workshop on
"AUTOMATION IN MECHANICAL ENGINEERING "
DATE: 2ⁿᵈ Sep to 6ᵗʰ Sep, 2019

Feedback Form

Your feedback, our Improvement

NAME: Himanshu Kumar
BATCH: 2K17
ROLL NO.: 17M16
EMAIL: himanshu2k17mit@gmail.com

Please respond below with 1,2,3,4 or 5. Where 1 one is strongly disagree and 5 is strongly agree.

Design of Workshop:

		Yes/No
A.	Were objectives of course clear to you?	Yes
B.	The Workshop met with your expectations.	5
C.	The Workshop was well planned	5
D.	The contents illustrated with adequate examples	5
E.	The Workshop exposed you to new knowledge and practices	5

Conduct of Workshop:

A.	The presentations of the Workshop	5
B.	Suggestion from is well documented	4
C.	Session interactivity	5
D.	Please give overall rating of the workshop in 1-5 (1 is poor and 5 is excellent)	5

Please give suggestions for the improvement of the Workshop.

This kind of workshop should be Conducted regularly.

signature