

**Sant Longowal Institute of Engineering &  
Technology,  
Longowal -148106, Dist. Sangrur (Pb.)  
Deemed to be University  
under MHRD, Govt. of India**



*Short Term Training Programme (STTP)*

*On*

**Recent Trends in Mechatronics and Robotics  
(RTMR-2018)**

**(December 10-14, 2018)**

Organized by  
Department of Mechanical Engineering

**Sponsored by**

**TEQIP III, MHRD, Govt. of India**

**Course Coordinators**

**Dr. Sunil Kumar  
Dr. Vivek Kumar**

Department of Mechanical Engineering,  
SLIET Longowal

## **Introduction:**

Mechatronics and Robotics is an energizing and emerging, multi-disciplinary field of engineering that incorporates a combination of system engineering, mechanical engineering, electrical engineering, control engineering and computer engineering. Innovation in the mechatronics plays an important role in the development of any nation. Further, Mechatronics and robotics are becoming prominent in automation and process control applications. The STTP throws light on thought-provoking topics and recent research in the field of Mechanical, Automation, Robotics, Control Systems and many more. The program also aims to give an exposure to various modeling and simulation tools for the analysis of such systems. This program helps to identify future research needs in this emerging field.

## **Course Objectives:**

The main objective of the course is to enable the participants to the state-of-art technology in Mechatronics and Robotics further enabling them to take up challenging assignment in future and spread the learning to the peers and creating professional environment. Interdisciplinary in the nature, the course will enrich participants with necessary inputs

in all areas, starting from fundamentals and then in the modeling and ending in simulation.

## **Course Contents:**

The STTP is focused to discuss various aspects of mechatronics and robotics. Few important topics that will be covered in this programme.

- Introduction to Mechatronics and robotics
- Robotics
- Modeling & Simulation of Engineering Systems
- Artificial Intelligence
- Biomedical Engineering.
- Electromagnetic Devices
- Condition Monitoring, Fault Diagnosis and Signal Processing

## **Resource Persons:**

Apart from faculty members of SLIET Longowal, experts from IIT, NIT, DTU, etc. and Industries of national repute will conduct the theory & practical sessions of the programme.

## **Who can participate?**

Faculty members, research scholars belonging to engineering & applied sciences disciplines from AICTE recognized Colleges and Universities can

participate in the programme. The programme is also useful to industrial practitioners working at appropriate level involved in R & D and strategic engineering decision making.

### How to Apply:

The interested faculty members from academia and Industrial practitioners are required to send the duly filled registration form with registration fee in form of DD in favor of RTMR-2018, SLIET, Longowal on or before November 25, 2018. However, an advance copy of the application may be sent to the organizers through e-mail.

### Course fee/Registration Fee (Nonrefundable)

- Registration Fee for Faculty: Rs. 1000/-
- Registration Fee for Research Scholar: Rs.500/
- Registration Fee for Industrial Delegates: Rs. 1500/-

Boarding, lodging arrangements will be made to accommodate participants on twin sharing basis at the Faculty Guest House and Transit Guest Houses. Meals will be arranged at Faculty Guest House for all the participants. No TA will be provided to the participants for attending the programme.

### Important Dates:

Last date for receipt of duly filled application form

**November 25, 2018**

Finalization of list of selected participants

**November 31, 2018**

Last Date for receipt of confirmation participation  
(via email)

**\*December 05, 2018**

*\*Participation stands cancelled if confirmation email is not received by the specified date. Seats, if so vacant, will be offered to other eligible applicants.*

### Organizing Committee

Patron: Prof. S. K. Jain, Director  
Chairperson: Prof. Rajesh Kumar, HOD (ME)  
Coordinator: Dr. Sunil Kumar  
Dr. Vivek Kumar

### Address for Communication

#### Programme Coordinator (RTMR-2018)

Department of Mechanical Engineering  
Sant Longowal Institute of Engineering and Technology,  
Longowal-148106, District Sangrur  
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### Registration Form

#### Recent Trends in Mechatronics and Robotics (RTMR-2018)

**December 10-14, 2018**

Name: -----

Academic qualification: -----

Designation: -----

Experience (years): -----

Institution: -----

Address for correspondence:  
-----  
-----  
-----

Telephone: -----

Mobile: -----

E-mail: -----

Accommodation needed: Yes / No

Enclosed crossed bank draft No. \_\_\_\_\_

Dated \_\_\_\_\_ of \_\_\_\_\_ in favour of

“RTMR-2018”, SLIET, Longowal.

Signature of the applicant

**Signature and Seal of Sponsoring Authority**

## Report of RTMR-2018 STTP Conducted Under TEOIP-III

1. Name of the Department : Mechanical Engineering Department
2. Title of Programme : Recent Trends in Mechatronics and Robotics (RTMR- 2018)
3. Name of Coordinator : Dr. Sunil Kumar & Dr. Vivek Kumar
4. Duration (Dates) : 10-14 Dec., 2018
5. Day wise Schedule : Annexure I
6. Details of Experts/Keynote Speakers:

S.No.	Name of Expert with Designation	Organization	No. of Lectures Delivered/Hours
1.	Dr. Vishal Sharma, Prof.	NIT Jalandhar	01 Lecture /02 hrs
2.	Dr. Vikas Rastogi, Prof.	DTU Delhi	01 Lecture /02 hrs
3.	Mr. Ratnaji Bodda	Adroit control engineers private Ltd.	01 Lecture /02 hrs
4.	Mr. Tabish Haroon	Adroit control engineers private Ltd.	02 Lecture /04 hrs
5.	Mr. Shardul Amin	Famic Technologies privat Ltd.	01 Lecture /02 hrs
6.	Dr. Mohd. Suhaib, Prof.	Jamia Millia Islamia	01 Lecture /02 hrs
7.	Dr. Rajesh Kumar, Prof.	SLIET, Longowal	01 Lecture /02 hrs
8.	Dr. Aswani Agarwal, AP	SLIET, Longowal	01 Lecture /02 hrs
9.	Dr. Ashish Singla, Asso. Prof.	TIET, Patiala.	01 Lecture /02 hrs
10.	Dr. Ekta Singla, Asso. Prof.	IIT, Ropar	01 Lecture /02 hrs
11.	Dr. Vivek Kumar, AP	SLIET, Longowal	01 Lecture /02 hrs
12.	Dr. Ajat Shatru Arora, Prof.	SLIET, Longowal	01 Lecture /02 hrs
13.	Dr. Joseph Anand Vaz, Prof.	NIT, Jalandhar	01 Lecture /02 hrs
14.	Dr. Sunil Kumar, AP	SLIET, Longowal	01 Lecture /02 hrs
15.	Dr. Shailendra Jain, Director	SLIET, Longowal	01 Lecture /02 hrs
16.	Dr. Prabhkiran Kaur, AP	IKJPTU, Amritsar Campus	01 Lecture /02 hrs
17.	Dr, Tarun Kumar Bera, Asso. Prof.	TIET, Thapar	01 Lecture /02 hrs

### 7. Details of Participants:

#### (a) No. of participants:

	Faculty	Research Scholars	Industry Participants	Total
External	08	02	Nil	10
Internal	16	07	Nil	23

### 8. Registration Fee:

#### (a). Total registration fee collected from participants: **Rs 10500/-**

### 10. Summary of the feedback taken from the participants:

Overall all the participants were happy with the conduction of STTP in this area and appreciates the effort of organizing team. Few suggestions from the participants are-

- Some of the participants suggested conducting more such STTPs.
- Inclusion of Industry visit.
- Inclusion of more practical contents and hands on training
- One of the participants suggested having 2 weeks training programme to cover all topics.

### 11. Outcome of the program based on brainstorming session: the participants

- Learnt mechatronics and robotics fundamentals and their applications in real life.

- Learnt to identify the different electrical and mechanical components used.
- Got aware with process of automated system in manufacturing unit.
- Got conversed with different modules of Automation Studio
- The interactive sessions also helped the participants to discuss their problems with the experts.

List of Participants of STTP on Recent Trends in Mechatronics and Robotics (RTMR-2018)

	Name	Institution	Deignation	Mobile No.	Email
1	Dr. Vineet Shibe	Baba Hira Singh Bhattal Institute of Engineering and Technology, Lehragaga	AP	8146899877	<a href="mailto:shibevineet@gmail.com">shibevineet@gmail.com</a>
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4	Dr. Deepak Bhandari	Yadavindra college of Engineering, Talwandi Sabo, Punjab	AP	9417132956	<a href="mailto:bhandari2k@rediffmail.com">bhandari2k@rediffmail.com</a>
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9	Sabhil Thappa	Shri Mata Vaishno Devi University, Kakryal, Katra, J&K	RS	9419874626	<a href="mailto:sahilthappa1122@gmail.com">sahilthappa1122@gmail.com</a>
10	Menika Seth	Desh Bhagat Polytechnic College Bardwal	Principal	9814348555	<a href="mailto:seth_m2@rediffmail.com">seth_m2@rediffmail.com</a>
11	Rajan Garg	Desh Bhagat Polytechnic College Bardwal	Lecturer	9855693708	
12	Dr. Pardeep Gupta	Sant Longowal Institute of Engineering and Technology	Professor	9417664777	<a href="mailto:pardeepmech@yahoo.co.in">pardeepmech@yahoo.co.in</a>
13	Dr. Kulwant Singh	Sant Longowal Institute of Engineering and Technology	Professor	9815651868	<a href="mailto:engrkulwant@yahoo.co.in">engrkulwant@yahoo.co.in</a>
14	Dr. Klakhvinder Singh Solanki	Sant Longowal Institute of Engineering and Technology	ASP	9463067475	<a href="mailto:lakhwinder_singh_solanki@yahoo.co.uk">lakhwinder_singh_solanki@yahoo.co.uk</a>
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## Photographs of RTMR 2018



Photograph of Organizers and participants



Photograph taken during the inauguration of RTMR 2018



Lecture 17 was taken by Prof Shailendra Jain, Director SLIET Longowal during STTP on 14<sup>th</sup> Dec. 2018



Photograph taken after the lecture 14 of Prof Anand Vaz, NIT Jalandhar