

Objective of the Summer Internship Program

This program is designed to keep in mind the needs of the bright young Undergraduate Students of Mechanical Engineering who have the enthusiasm to learn the Emerging Advanced Manufacturing & Mechatronics Technologies and Post Graduate / PhD Scholars who wants to carry out research in the domain. This program will enhance the learner's knowledge and skills in the domain. This training course shall cover both theoretical as well as the practical aspects which will not only enhance the knowledge of the learner but also enhance practical quotient with these technologies to help them in Major B.Tech. projects / dissertation. The main theme of training program will be oriented around Advanced Manufacturing Technologies (AMTs) and role of Mechatronics in building these machine tools. Along with the hardware, this training program will also cover associated softwares for manual CNC programming, CAD to CAM, data acquisition, PLC programming, HMIs etc. which could be a small contribution to make India a Skill Capital of the World in this domain.

Course Content

The major course contents of the program are:

- Fundamentals of Advanced Manufacturing Technologies (AMTs) both in subtractive and additive domain.
- Need of CNC technologies for AMT based machine building.
- Need of elements of Mechatronics like controllers, sensors, actuators for CNC Technologies.
- Hands on programming practice for CNC machines by MDI and CAD to CAM tools.
- Hands-on practice on Mechatronics test rigs.
- Hands on practice on conventional CNC Machine tools for turning and milling operations.
- Hands on practice on AMTs like EDM, micro-EDM, Hybrid Machine, Additive Manufacturing (3D Printing M/c), Abrasive Flow Machine etc..
- Hands on practice on measuring instruments like, Surface Roughness Testers, Dynamometer Rheometer, Profilometer.

Resource Persons

The various sessions of this internship program will be preceded by faculty members of MNIT Jaipur, other reputed institutions like IITs, NITs and experts from industries. During the programme, participants will undergo lectures followed by equipment demonstration and hand on practice. Participants will have chance to interact with faculty members having research interest in Advanced Manufacturing & Mechatronics domain.

Eligibility / Target Audience

This summer internship program is targeted towards UG students and PG/PhD scholars of Govt. / Govt. aided / self-financed engineering colleges who are interested in Advanced Manufacturing Technologies like EDM, Micro-EDM, Hybrid Machining, FDM Additive Manufacturing Machine, Abrasive Flow Finishing, CNC Machines like VMC and TC, Dynamometer, CAD to CAM software, Automation and Mechatronics Technologies etc. All the undergraduate students of Mech. Engg. / Prod. Engg. etc., who are appearing in the 4th and 6th semester examinations are eligible to apply.

How to Apply / Registration

UG Students (ME/ PE etc.): 15,000/- (including 18%GST)

PG/PhD Scholars : 15,000/- (including 18%GST)

Faculty : 18,000/- (including 18%GST)

(PG/PhD specialization should be in Mechanical / Production / Manufacturing / Mechatronics).

For Fee Payment by DD (Demand Draft):

in favour of "The Registrar MNIT, Jaipur (TEQIP Phase-III)" payable at Jaipur.

For online payment NEFT/IMPS:

The Registrar MNIT, Jaipur (TEQIP Phase-III) Account No. 36875887782 IFSC CODE: SBIN0015921 (SBI, MNIT)

Registration Form Details

After fee submission, the applicant must register themselves by submitting details on

<https://goo.gl/forms/bfaHC6jsau4PJy2>

Further details of the internship and instructions for filling the form may be found on <https://camsociety.in/>

The applicant may also mail the filled registration form (given) with the appropriate requirements to the address of correspondence mentioned. **All registration forms must be received by 5th May 2019. Registration fee is non-refundable.**

The selection for the internship will be on 'first come first served' basis for the limited **20 seats**. The confirmation of the selection to attend the course will be emailed by the mentioned date. For further details about the course, contact

harlal.singh@mnit.ac.in.

Registration Form

Sponsored by TEQIP Phase-III

Summer Internship Program

on

“Advanced Manufacturing & Mechatronics Technologies”

13th May – 28th June, 2019

Department of Mechanical Engineering
MNIT Jaipur - 302 017 Rajasthan

Name : _____

Category (UG/PG): _____

Branch: _____

Year of Study: _____

Department: _____

Institute: _____

Mailing Address: _____

Phone (M) _____ (O) _____

E-mail: _____

Accommodation required? **Yes / No**

Registration fee details

Draft No. _____ Dt _____

For Rs _____ in favour of “**Registrar, MNIT Jaipur**” is enclosed.

The above information provided is true and to the best of my knowledge. If, selected, I agree to abide by the rules and regulations of the program and MNIT Jaipur.

Date: _____ **Signature of Candidate**

The applicant will be permitted to participate in the above program, if selected.

Date: _____ **Signature of HOD with Seal**

About MNIT Jaipur

Malaviya National Institute of Technology Jaipur (Deemed University) is one of the premier NITs, designated with the status of “**Institute of National Importance**” by MHRD. The institute was established in 1963, and its campus spreads over 325 acres of lush green area in the central location of Jaipur city. The institute offers undergraduate and postgraduate courses (B.Tech., M.Tech. /MBA / M.Sc. & Ph.D.) to about 4500 students, in leading fields of engineering, technology, architecture, management & sciences. Through the internationally renowned faculty, laboratories with state of art equipments and excellent infrastructure, the institute is actively engaged in research, consultancy and developmental activities, besides imparting regular teaching.

About Mechanical Engineering Department

The Department is one of the oldest departments of the institute, offering a fine blend of experience and innovation in teaching. Presently, offering undergraduate in Mechanical Engineering and post-graduate studies in Design Engineering, Thermal Engineering, Production Engineering and Industrial Engineering. The department is home to over 50 research scholars, pursuing Ph.D. in various fields of Mechanical Engineering. The department provides a life-long learning experience, through its state of art laboratories, vast pool of courses, and industry-orientation.

About Advanced Manufacturing & Mechatronics Lab.

The Lab. houses state of the art equipments i.e. Cincinnati® VMC, Bridgeport® CNC Milling M/c, MTAB® TC, MICROTECHNICA® AFM, One Way AFM, Electronica® EDM, MIKROTOOLS® Hybrid Micro-EDM, Surface Roughness Tester, Rheometer, 3D printer, Dynamometer, Sensors, PLCs, micro-controllers, DAQs etc. Lab always has around 10 research scholars and hosted interns / scholars from across India & Abroad due to its world class ambience.

About Jaipur

The city of Jaipur, also known as Pink City, is the capital and largest city of Rajasthan. Jaipur has

attractions like Hawa Mahal, Amber Fort, Jaigarh Fort, Nahargarh Fort, Jal Mahal, Kanak Vrindavan Valley, City Palace, Jantar Mantar, Albert Hall Museum, Sisodia Rani Garden, Govind Devji Temple, Birla Temple. Jaipur is well connected by road, rail and air services. It is about 250 kms from Delhi. MNIT Jaipur is situated on JLN Marg and is about 9 kms from both, Jaipur Junction and ISBT (Sindhi Camp). Airport is about 4 kms away from the institute.

Organizing Committee

Patron

Prof. Udaykumar R Yaragatti, Director, MNIT-Jaipur

Chairman

Prof. Dilip Sharma, Prof & Head, Mech. Engg. Dept.

Program Coordinators

Dr. Harlal Singh Mali, Asso. Prof., Mech. Engg. Dept.

Dr. Amar Patnaik, Asso. Prof., Mech. Engg. Dept.

Dr. Amit Singh, Asst. Prof., Mech. Engg. Dept.

Dr. Anup Malik, Asst. Prof., Mech. Engg. Dept.

Accommodation

Limited accommodation is available in the MNIT Hostels for outstation participants on nominal charge and first come first serve basis. The participant will not be paid any TA/DA. Charges of Institute Hostels are approximately Rs. 200/- (approx.) per day excluding food.

Dates to remember

Last date of receiving complete 5th May 2019
Registration form

Confirmation of Selection by E-mail 6th May 2019

Internship Duration 13th May to 28th June 2019

Address for Communication

Dr. Harlal Singh Mali

Associate Professor,

Advanced Manufacturing & Mechatronics Lab

Department of Mechanical Engineering,

Malaviya National Institute of Technology,

J.L.N. Marg, Jaipur-302 017, Rajasthan

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Summer Internship Program-19

With Aim

“Make in India through Skilling India”

on

Advanced Manufacturing & Mechatronics Technologies

May 13th – June 28th, 2019



Organized By:

**Department of Mechanical Engineering
Malaviya National Institute of Technology
Jaipur- 302 017 (www.mnit.ac.in)**