

Skills Enhancement Program (SEP)-2022

Name of Department	Department of Mechanical Engineering
Module Name	Mechanical Engineering Recent Aspects and Applications
Module Coordinators	1. Prof. Utkarsh Srivastava 2. Prof. Ajay Singh Rajput
Module Objective	The objective of this online internship is to give the idea about various recent aspects & trends in Mechanical Engineering and its application in the different areas. The contents of the module are different from the syllabus and it is targeted towards industry requirements.
Module Content	1. Automation and Robotics. 2. Industrial Application of Heat Transfer & Refrigeration. 3. Solar Thermal & Solar PV Applications. 4. Condition Monitoring & Material Testing.
Module Methodology	The module will cover the various aspects of Mechanical Engineering Recent Aspects & Applications. There will be some Interactive theory/modelling sessions to share the knowledge, followed by assignments, quizzes and worksheets. Students are required to submit the Internship Report in the department at the end of the module.
Module Outcome/ Impact	Students will be able to: 1. Understand recent trends in automation & robotics. 2. Understand the concept of industrial heat transfer & refrigeration. 3. Understand the basic concept of PV system and its design & applications. 4. Understand the condition monitoring system and various parameters of material testing.
Duration	4 Weeks (20 days)

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Day Wise Schedule

	Date	Day	Module Contents to be covered/Interactive Session/Assignment/Quiz/Exercises/Daily practice sheets (DPP)/Tutorial/Project etc(10:00 AM onward, 2-3 Hrs/ Day)	Faculty
Week 1	13/06/2022	Mon	Automation I	Dr. G. Norkey& Mr. Ajay Rajput
	14/06/2022	Tue	Automation II	Dr. G. Norkey& Mr. Ajay Rajput
	15/06/2022	Wed	Robotics I	Dr. G. Norkey&Mr. Ajay Rajput
	16/06/2022	Thur	Robotics II	Dr. G. Norkey& Dr. Neeraj Mishra
	17/06/2022	Fri	Robotics III	Dr. G. Norkey& Dr. Neeraj Mishra
Week 2	20/06/2022	Mon	Industrial Application of Heat Transfer-I	Dr. Jyoti Vimal
	21/06/2022	Tue	Industrial Application of Heat Transfer-II	Dr. Jyoti Vimal
	22/06/2022	Wed	Industrial Application of Refrigeration-I	Prof. Bhupendra Pandey
	23/06/2022	Thur	Industrial Application of Refrigeration-II	Prof. Bhupendra Pandey
	24/06/2022	Fri	Industrial Application of Refrigeration-III	Prof. Bhupendra Pandey
Week 3	27/06/2022	Mon	Solar Thermal Application-I	Dr. M.K. Gaur & Prof. Vedansh Chaturvedi
	28/06/2022	Tue	Solar Thermal Application-II	Dr. M.K. Gaur & Prof. Vedansh Chaturvedi
	29/06/2022	Wed	Design and Simulation Photovoltaic plant	Dr. C.S. Malvi
	30/06/2022	Thur	Effect of Dust and its maintenance activities	Dr. C.S. Malvi
	01/07/2022	Fri	Schemes for Installation of Solar Power Plant	Dr. C.S. Malvi
Week 4	04/07/2022	Mon	Condition Monitoring-I	Dr. Nitin Upadhyay

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05/07/2022	Tue	Condition Monitoring-II	Dr. Nitin Upadhyay
06/07/2022	Wed	Condition Monitoring-III	Dr. Nitin Upadhyay
07/07/2022	Thur	Material Testing-I	Prof. Vaibhav Shivhare
08/07/2022	Fri	Material Testing-II	Prof. Vaibhav Shivhare

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Module Coordinators Email Id and Mobile Number	1. utkarsh@mitsgwalior.in , 6260044242 2. asrajput1992@mitsgwalior.in , 9691819843
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Eligibility and Important Instructions :-

1. The **Skills Enhancement Program (SEP)-2022** is designed only for Pre-final & Final Year students of Mechanical Engineering Department.
2. The students may apply online.
3. The Skills Enhancement Program (SEP)-2022/ Summer Internship Program is free for the participants of Pre-final & Final year students of MITS, Gwalior.
4. The participants outside the Institute may also join the Program on payment basis.
5. This blended/offline module will be conducted under the **Skills Enhancement Program** which will be considered equivalent to Offline Internship of Pre-final year students who could not get any Internship during this situation.
6. Duration of this program will be of four weeks which is equivalent to summer Internship period as per AICTE and our Institute policy. Daily no. of hours of blended/offline training may be flexible.
7. Certificates will be issued to candidates who have attendance 75% or more and also score more than 60% in the test.