

Summary Report of the Short-Term Training Program (STTP)
On
Skill Development In CNC Technology

Department of Mechanical Engineering organized a Short-Term Training Program (STTP) on Skill Development In CNC Technology' for B-Tech Mechanical Engineering students of the University and its affiliated colleges from 13.06.2016 to 17.06.2016. Aim of this program was to help for B.Tech. (Mechanical Engineering) graduating students for achieving the following technical objectives as per the Industry requirement in today's scenario.

- Modeling of 2D and 3D parts
- Integrating CAD and CNC Technology
- Programming on CNC Machines
- Operating CNC Machines

This program was organized with the following details:

Fee	Nil
Intake	20 candidates (on first come first serve basis)
Eligibility	Pursuing B Tech Mechanical Engineering (3 rd year and 4 th year)
Certification	Admitted participants will receive certificates after the successful completion of the program.
Venue	CNC Lab, Department of Mechanical Engineering

In this program 15 students participated, resource persons were internal senior faculty members and Outside Experts from reputed industries Hindustan Machine Tools, M/s Electronica Machine Tool, Pune and M/s Venture Enterprises, New Delhi

Session	Monday (13.06.2016)	Tuesday (14.06.2016)	Wednesday (15.06.2016)	Thursday (16.06.2016)	Friday (17.06.2016)
I 9:00 AM – 10:00 AM	Basics of CNC Technology <i>Sh. Pankaj Khatak GJUST, Hisar</i>	Advanced Programming of CNC Machining Center. <i>Sh. Rajendra Nayak, Venture Enterprises</i>	Description of CNC Wire EDM <i>Sh. Lalit Electronica India Ltd., Pune.</i>	Advanced Part Programming of CNC Wire EDM <i>Sh. Lalit Electronica India Ltd., Pune.</i>	2D Modeling on Solidworks <i>Dr. Vishal Gulati GJUST, Hisar</i>
II 10:00 AM – 11:00 AM	Description of CNC Machining Center <i>Sh. Rajendra Nayak, Venture Enterprises</i>	Hands on training on CNC Machining Center. <i>Sh. Rajendra Nayak, Venture Enterprises</i>	Interaction with CNC Wire EDM <i>Sh. Lalit Electronica India Ltd., Pune.</i>	Hands on training on CNC Wire EDM <i>Sh. Lalit Electronica India Ltd., Pune</i>	Integration of CAD and CAM software <i>Dr. Vishal Gulati GJUST, Hisar</i>
Break					
III 11:30 AM – 12:30 PM	Interaction with CNC Machining Center <i>Sh. Rajendra Nayak, Venture Enterprises</i>	Offline Programming of CNC Machining Center. <i>Sh. Rajendra Nayak, Venture Enterprises</i>	Part Programming of CNC Wire EDM <i>Sh. Lalit Electronica India Ltd., Pune.</i>	Offline Programming of CNC Wire EDM <i>Sh. Lalit Electronica India Ltd., Pune</i>	3D Modeling on Solidworks <i>Dr. Vishal Gulati GJUST, Hisar</i>
IV 12:30 PM – 01:30 PM	Manual Part Programming of geometrical object for CNC Machining Center. <i>Sh. Rajendra Nayak, Venture Enterprises</i>	Hands on training on CNC Machining Center. <i>Sh. Rajendra Nayak, Venture Enterprises</i>	Hands on training on CNC Wire EDM <i>Sh. Lalit Electronica India Ltd., Pune.</i>	Hands on training on CNC Wire EDM <i>Sh. Lalit Electronica India Ltd., Pune</i>	Assembly modeling on CAD systems <i>Dr. Vishal Gulati GJUST, Hisar</i>
Lunch					
V 2:00 PM –	Hands on training on CNC Machining Center.	Hands on training on CNC Machining	Hands on training on CNC Wire EDM	Basics and Part Programming on	Certificate Distribution Feedback

4:00 PM	<i>Sh. Rajendra Nayak, Venture Enterprises</i>	Center. <i>Sh. Pankaj Khatak GJUST, Hisar</i>	<i>Sh. Pankaj Khatak GJUST, Hisar</i>	CNC Turning Center <i>Sh. Pankaj Khatak GJUST, Hisar</i>	
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Dr. Vishal Gulati

A Report on
Faculty Development Programme

Advancements in Mechanical Engineering

(29.08.2016 – 02.09.2016)

(Sponsored by TEQIP-II)



Department of Mechanical Engineering
GJUS&T, Hisar, Haryana – 125001

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Introduction

The Department of Mechanical Engineering, GJUS&T, Hisar organized a FDP on “**Advancements in Mechanical Engineering (AME-16)**” from 29.08.2016 to 02.09.2016 for researchers\engineers to showcase and disseminate high-quality research in the domain of Recent advances in Mechanical Engineering. Thirty four Research Scholars\faculty members from different institutes/colleges participated in this FDP. The list of registered AME-16 participants is at **Appendix-I**.

1. FDP Activities

Through the lectures from various experts in their field, AME’2016 provided a good exposure to the research scholars and faculty members to various Advancements in Mechanical field such as Vibration, Computational fluid dynamics, CAE, nanofluids, Tribology, CAD/CAM etc. The course has provided the participants with an in-depth study of a number of current research topics, open problems, along with the potential research ideas and discussions on the Mechanical Engineering.

The FDP consisted of number of expert talks. Program schedule of the AME-16 is at **Appendix-II**. The participants found the topics covered and presented by invited experts very useful and also, appreciated the quality of speakers. The participants attendance in all sessions that reflects their enthusiasm towards the workshop.

Feedback forms clearly indicate that participants were fully satisfied with the contents of the workshop. Further, they appreciated the hospitality and requested for frequent sequels of the event.

2. FDP Highlights

The following sessions detail present short overview of the workshop, focusing on key themes and ideas presented in the FDP. Twelve expert lectures were delivered to the participants during the workshop. Appendix –III contains the list of experts and topic of their Expert Talk.

A. Inaugural Ceremony

On 29.08.16, at 9:30 am the inaugural function was organized at the Seminar Hall-I,Ch. Ranbir Singh Auditorium,GJUS&T. The honorable dignitaries were welcomed with the bouquet during the inaugural function.

Dr. Vishal Gulati, Coordinator and Associate Prof. Department of Mechanical Engineering welcomed the dignitaries and participants of the FDP and spoke briefly about the significance of the FDP.

Honorable Dean (TEQIP-II) Prof. Dharminder Kumar welcomed the chief guest Dr. Anil Kumar Pundir, Registrar, GJUS&T, Hisar and gave presidential address and explained the importance of AME-16 and motivation behind the workshop.

Honorable Dean (FET) Prof. Dinesh Kumar addressed the need of the FDP for the improvement of the skills. He added that these platforms bring the faculty together and motivate them for research on different topics.

Dr. Anil Kumar Pundir, Registrar, GJUS&T, Hisar, inaugurated the FDP and spoke briefly about the need of interdisciplinary research.

Dr. Munish Gupta, Coordinator and Assistant Prof. Department of Mechanical Engineering proposed vote of thanks at the end of the inaugural session.

The inaugural session was followed by the high tea.

B. Expert Lectures

Mr. Pankaj Khatak, Assistant Professor, Department of Mechanical Engineering, GJUS&T, Hisar delivered his expert talk on “CNC Technologies”. He also gave the exposure to the participants about the CNC in the CNC Lab.

Prof. S.K Mohapatra, Professor, Department of Mechanical Engineering, Thapar University, Patiala, has delivered expert talk for two sessions on “Outcome based education” and “Trends on fossil fuel based thermal power generation in India”.

Dr. Manu Sharma, Associate Professor, Department of Mechanical Engineering, UIET, Panjab University, delivered expert talk for two sessions on “Principle of automatic control” and “Vibration control : Passive & Active”.

Dr. Satish Kumar, Assistant Professor, Department of Mechanical Engineering, Thapar University, Patiala has delivered expert talk for two sessions on “Simulation of Centrifugal Pump Performance Using CFD” and “Design And Modeling of Turbo-Machines”

Prof. Gian Bhushan, Professor, Department of Mechanical Engineering, NIT Kurukshetra, has delivered his expert talk for two sessions on “FEA analysis using CAE tool” and “Case studies using CAE tool”.

Dr. Akhilesh Arora, Assistant Prof, Department of Mechanical Engineering, DTU, Delhi, delivered talk for two sessions on “Alternative for Refrigeration” and “Engineering equation Solver : A software for computation of refrigerant properties and cycle analysis”.

Dr. Gulshan Schdeva, Assistant Professor, Department of Mechanical Engineering, NIT Kurukshetra, has delivered his expert talk for one session on “Steam Jet Refrigeration”.

Prof. Viney Gupta, Professor, Department of Mechanical Engineering, UIET, Punjabi University, Patiala, has delivered expert lecture for one sessions on “Natural Fiber Reinforced Polymer Matrix Composites: The Need of Future ”.

Prof. Harwinder Singh, Professor, Department of Mechanical Engineering, GNE Ludhiana, delivered talk for two sessions on “Optimization Techniques- Part-I and Optimization Techniques- Part-II”.

Prof. H. C Garg, Professor, Department of Mechanical Engineering, GJUS&T, Hisar delivered talk for one sessions on “Hydrodynamic Lubrication”. He also gave the exposure to the participants about the different equipments in the Tribology Lab.

Dr. Munish Gupta, Coordinator and Assistant Professor, Department of Mechanical Engineering, GJUS&T, Hisar delivered talk for one sessions on “Nanofluids”

Dr. Vishal Gulati, Coordinator and Associate Professor, Department of Mechanical Engineering, GJUS&T, Hisar delivered talk for one sessions on “Customization of CAD system”

Dr. Akshay Dwivedi, Associate Professor, Department of Mechanical Engineering, IIT, Roorkee delivered talk for two sessions on “Applied Research-Part-I” and “Applied Research-Part-II”

C. Valedictory Session

Dean (TEQIP-II) Prof. Dharminder Kumar presided over the function. Workshop coordinator Dr. Munish Gupta, Coordinator expressed the FDP summary. Dr. Vishal Gulati expressed the vote of thanks. Finally certificates to the participants were distributed by Prof. Dharminder Kumar and Dr. Akshay Dwivedi, IIT Roorkee in the valedictory function. Prof. H.C Garg, Mr. Pankaj Sharma, Dr. Mahesh Kumar and other faculty members of the Department were also present.

3. Registration Fee

The AME’2016 registration fee for participation in the workshop was as follows: Details is at **Appendix –IV**.

- Faculty : 1000.00 INR
- Scholar : 1000.00 INR
- No fees for the TEQIP-II funded institution

4. Funding Agency

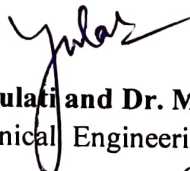
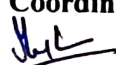
Our primary funding agency was TEQIP-II

5. Outcome of the Faculty Development Programme

- The students/participants obtained some basic understanding of issues and fundamentals in advancements in Mechanical Engineering.
- They get exposure to different domain of Mechanical Engineering and related research fields with practical exposure.
- Learned the new techniques.
- Understand tools and techniques to implement Practical Problems in Mechanical Engineering.
- Participants learned the importance of advancements and their need in today's life.

6. Budget of AME-16

The details of budget sanctioned and expenditure incurred is at Appendix V.

  Coordinators
(Dr. Vishal Gulati and Dr. Munish Gupta)
Mechanical Engineering Department
GJUS&T, Hisar

Appendix –I

List of Participants

Total 34 participants from various institutes and colleges have registered for the workshop.

Sr. No.	Name of the Participant	Department/Institute /Address
1.	Vikash Jangra	Assistant Prof. M.E.D, PPIMT, Hisar
2.	Vikas Kumar	Assistant Prof. M.E.D, PPIMT, Hisar
3.	Gitesh Kumar	Assistant Prof. M.E.D, PPIMT, Hisar
4.	Surender Kumar	Associate Prof., C.E.C, Landran Mohali
5.	Ghanshyam Dass	Lecturer, Govt. Polytechnic, Hisar
6.	Vijender Singh	Lecturer, Govt. Polytechnic, Hisar
7.	Subhash Chander	Lecturer, Govt. Polytechnic, Hisar
8.	Rajesh	Assistant Professor, M.E.D, OITM, Hisar
9.	Anil Kumar	Assistant Professor, M.E.D, OITM, Hisar
10.	Sunil kumar	Assistant Professor, M.E.D, OITM, Hisar
11.	Nishant	Assistant Professor, M.E.D, OITM, Hisar
12.	Gurprit Singh	Research Scholar (MED), Thapar University Patiala
13.	Jatinder Pal Singh	Research Scholar (MED), Thapar University Patiala
14.	Harpreet Singh	Research Scholar (MED), Thapar University Patiala
15.	Gurvinder Singh	Assistant Prof. M.E.D, JCD, Sirsa.
16.	Gaurav Mehta	Assistant Prof. M.E.D, JCD, Sirsa.
17.	Ravi Gupta	Assistant Prof. M.E.D, RPIIT, Karnal.
18.	Aman Sharma	Assistant Prof. M.E.D, RPIIT, Karnal.
19.	Ajay	K.R. Manglam University, Sohna
20.	Vinay Kumar	Research Scholar (MED), GJUS&T, Hisar
21.	Kaushal Kumar	Research Scholar (MED), GJUS&T, Hisar
22.	Rajender Singh	Assistant Prof. M.E.D, GJUS&T, Hisar
23.	Jagdep Chauhan	Assistant Prof. M.E.D, GJUS&T, Hisar
24.	Rakesh Kumar	Assistant Prof. M.E.D, GJUS&T, Hisar
25.	Paramjeet Lamba	Assistant Prof. M.E.D, GJUS&T, Hisar
26.	Vijay Singh	Assistant Prof. M.E.D, GJUS&T, Hisar
27.	Himanshu Manchanda	Assistant Prof. M.E.D, GJUS&T, Hisar
28.	Sonu Mathur	Assistant Prof. M.E.D, GJUS&T, Hisar
29.	Sudhir	Assistant Prof. M.E.D, GJUS&T, Hisar
30.	Yajvinder	M.E.D, GJUS&T, Hisar
31.	Amitesh Goswami	Lecturer, Govt. Polytechnic, Hisar
32.	Ajay Kumar	Assistant Prof. M.E.D, SNCOE, Hisar
33.	Bhupender Singh	Assistant Prof. M.E.D, YMCAUST, Hisar
34.	Nitin Panwar	Assistant Prof. M.E.D, YMCAUST, Hisar

Appendix-II
FDP Schedule on Advancements in Mechanical Engineering

Time	Monday (29.08.16)	Tuesday (30.08.16)	Wednesday (31.08.16)	Thursday (01.09.16)	Time	Friday (02.09.16)
9:30-11:00A.M.	Inaugural Session Chief Guest Dr. Anil Kumar Pundir, Registrar, GJU S&T, Hisar	Dr. Manu Sharma, MED, UIET, Chandigarh Topic: Principle of automatic control	Prof. Gian Bhushan, MED, NIT, Kurukshetra Topic: FEA analysis using CAE tool	Dr. Gulshan Sachdeva, MED, NIT, Kurukshetra Topic: "Steam Jet Refrigeration	8:30-9:30A.M	Prof. H.C Garg MED, GJUS&T, Hisar Topic: Hydrodynamic Lubrication
					09:30 -11:00 A.M	Dr. Munish Gupta MED, GJUS&T, Hisar Topic: Nanofluids
11:00-11:15A.M.		TEA BREAK				
11:15-12:45P.M.	Mr. Pankaj Khatak MED, GJUS&T, Hisar Topic: CNC Technologies	Dr. Manu Sharma, MED, UIET, Chandigarh Topic: Vibration control : Passive & Active	Prof. Gian Bhushan, MED, NIT, Kurukshetra Topic: Case studies using CAE tool	Prof. Vinay Gupta, MED, UIET, Punjabi University, Patiala Topic: Natural Fiber Reinforced Polymer Matrix Composites: The Need of Future	11:15-12:45P.M.	Dr. Vishal Gulati MED, GJUS&T, Hisar Topic: Customization of CAD system
12:45-1:45		LUNCH BREAK				
1:45-3:15P.M.	Prof. S.K Mohapatra, MED, Thapar University, Patiala Topic: Outcome based education	Dr. Satish Kumar, MED, Thapar University, Patiala Topic: Simulation of Centrifugal Pump Performance Using CFD	Dr. Akhilesh Arora, MED, DTU, Delhi Topic: Recent advances in refrigeration	Prof. Harwinder Singh, MED, GNE, Ludhiana Topic: Optimization Techniques I	1:45-3:15P.M.	Dr. Akshay Dwivedi, Associate Professor, IIT, Roorkee Topic: Applied Research-I
3:15-3:30P.M.		TEA BREAK				
3:30-5:00P.M.	Prof. S.K Mohapatra, MED, Thapar University, Patiala Topic: Trends on fossil fuel based thermal power generation in India.	Dr. Satish Kumar, MED, Thapar University, Patiala Topic: Design And Modeling of Turbo-Machines	Dr. Akhilesh Arora, MED, DTU, Delhi Topic: Engineering equation Solver : A software for computation of refrigerant properties and cycle analysis	Prof. Harwinder Singh, MED, GNE, Ludhiana Topic: Optimization Techniques II	3:30-5:00P.M.	Dr. Akshay Dwivedi, Associate Professor, IIT, Roorkee Topic: Applied Research-II
5:00-5:10 P.M						Valedictory Session

Appendix-III

Details of Experts

Sr. No	Name and Affiliation of Expert	Mobile No	Email-id
1	Prof. S.K Mohapatra, MED, Thapar University,Patiala	09115608822	skmohapatra@thapar.edu
2	Dr. Pankaj Khatak, A.P,GJUS&T,Hisar	9416244814	
3	Dr. Manu Sharma, MED,UIET, Panjab University, Chandigarh	09888509778	manu@pu.ac.in
4	Dr. Satish Kumar, MED, Thapar University, Patiala	09417923801	satish.kumar@thapar.edu
5	Prof. Gian Bhushan, MED, NIT, Kurukshetra	09416220361	aroragian@yahoo.com
6	Dr. Akhilesh Arora, MED, DTU, Delhi	09310279932	aroraakhilesh@yahoo.com
7	Dr. Gulshan Sachdeva, MED, NIT, Kurukshetra	08950496665	gulshan4you@gmail.com
8	Prof. Vinay Gupta, MED, UIET, Punjabi University, Patiala	08950496665	guptavk_70@yahoo.co.in
9	Prof. Harwinder Singh, MED,GNE, Ludhiana	09416220361	harwin75@rediffmail.com
10	Dr. Dvivedi Akshay, Associate Professor, MED, IIT Roorkee	09411176136	dvaksfme@iitr.ac.in
11	Prof. H.C Garg,GJUS&T,Hisar	9991359271	
12	Dr. Vishal Gulati, GJUS&T,Hisar	9416121933	
13	Dr. Munish Gupta,GJUS&T,Hisar	9416295569	

Appendix-IV
(Registration fee for participation details)

Sr. No.	Name of the Participant	Department/Institute /Address	Amount	Remarks
1.	Vikash Jangra	Assistant Prof. M.E.D, PPIMT, Hisar	1000/-	SBI, HSR 535660, Dated:22/08/16
2.	Vikas Kumar	Assistant Prof. M.E.D, PPIMT, Hisar	1000/-	SBI, HSR 535658, Dated:22/08/16
3.	Gitesh Kumar	Assistant Prof. M.E.D, PPIMT, Hisar	1000/-	SBI, HSR 535659, Dated:22/08/16
4.	Ghanshyam Dass	Lecturer, Govt. Polytechnic, Hisar	1000/-	Canara Bank 598971, Dated:16/08/16
5.	Vijender Singh	Lecturer, Govt. Polytechnic, Hisar	1000/-	PNB Bank 832939, Dated:17/08/16
6.	Subhash Chander	Lecturer, Govt. Polytechnic, Hisar	1000/-	PNB Bank 832961, Dated:26/08/16
7.	Rajesh	Assistant Professor, M.E.D, OITM, Hisar	1000/-	PNB Bank, Talwandi Rana 826533, Dated:23/08/16
8.	Anil Kumar	Assistant Professor, M.E.D, OITM, Hisar	1000/-	PNB Bank, Talwandi Rana 826530, Dated:23/08/16
9.	Sunil kumar	Assistant Professor, M.E.D, OITM, Hisar	1000/-	PNB Bank, Talwandi Rana 826532, Dated:23/08/16
10.	Nishant	Assistant Professor, M.E.D, OITM, Hisar	1000/-	PNB Bank, Talwandi Rana 826531, Dated:23/08/16
11.	Gurvinder Singh	Assistant Prof. M.E.D, JCD, Sirsa.	1000/-	OBC, Sirsa 806826, Dated:19/08/16
12.	Gaurav Mehta	Assistant Prof. M.E.D, JCD, Sirsa.	1000/-	Axis Bank, 000932, Dated:24/08/16
13.	Ravi Gupta	Assistant Prof. M.E.D, RPIIT, Karnal.	1000/-	PNB, Karnal 210380, Dated:23/08/16
14.	Aman Sharma	Assistant Prof. M.E.D, RPIIT, Karnal.	1000/-	PNB, Karnal 210381, Dated:23/08/16
15.	Ajay	K.R. Manglam University, Sohna	1000/-	PNB, Hisar 832957, Dated:23/08/16
16.	Ajay Kumar	Shanti Niketan College of Engineering, Hisar	1000/-	ICICI Bank, Hisar 501310, Dated:26/08/16
Total			16000/-	

Appendix-V

(Budget sanctioned and incurred Registration fee for participation details)

Sanctioned Expenditure	
Item	Amount in Rs.
FDP Kits (including learning material)	20,000
TA/DA (as per TEQIP-II guidelines) & Honorarium (@1500/- per session of duration 1.5 Hrs) to Invited Speakers	1,00,000
Printing (Banner, poster, certificate etc.)	6,000
Lunch, Refreshment and Stay	50,000
Mementos, Photographs, etc.	8,000
Miscellaneous Expenditure	6,000
Total approximate Expenditure under TEQIP-II	Rs. 1,90,000/-

Incurred Expenditure

Sr. No.	Item	Particulars	Name of Firm	Amount	
1.	TA/DA & Honorarium	Honorarium (@1500/- per session of duration 1.5 Hrs) to Invited Speakers	-----	62967/-	62967/-
2.	FDP Kits	Folder	M/s New international stationers, Hisar	1938/-	3774/-
		Pen, pad, tag and batch, envelope	M/s New international stationers, Hisar	1836/-	
3.	Printing (Banner, poster, certificate etc.)	Flex Printing Banner	M/s Bhayana Plastic Signs, Near Sohan Cinema, Hisar	1934/-	4424/-
		Pamphlets Color Printouts	M/s Hisar Photostat, 31, New Palika Bazar, Hisar	500/-	
		Certificate Printing, colour printouts photocopy etc.	M/s Hisar Photostat, 31, New Palika Bazar, Hisar	1990/-	
4.	Lunch, Refreshment and Stay	Breakfast (for Inaugural function on 29.8.16)	M/s Shamsheer Singh Mess Contractor, GJUS&T, Hisar	5000/-	27583/-
		Lunch (for Participants and Resources persons)	Guest House, GJUS&T, Hisar	16000/-	

		Refreshment (for Resources persons)	M/s Narender Kiryana Store, Barwala Road, Hisar	768/-	
		Refreshment (for Valedictory function on 02.9.16)	M/s Bikaner Misthan Bhandar, 158, Red Square Mkt., Hisar	1860/-	
		Tea (for Participants and Resources persons)	Boys Hostel, III Mess, GJUS&T, Hisar	1995/-	
		Refreshment (for Resources persons)	M/s Narender Kiryana Store, Barwala Road, Hisar	1960/-	
5.	Mementos, Photographs, etc.	Photographs & DVD	M/s D.K.Studio, 1 st floor, Talaki Gate, Hisar	345/-	2632/-
		Photographs, Album etc.	M/s D.K.Studio, 1 st floor, Talaki Gate, Hisar	437/-	
		Mementos	M/s Rattan Sports, Inside Nagori Gate, Hisar	1850/-	
6.	Miscellaneous Expenditure	Stationery Items	M/s Anicors Pen Store, Jain Gali, Corner, Hisar	1970/-	3130/-
		Tata Roses (for Inaugural function on 29.8.16)	M/s BL Flowers, 1, Nagori Gate, Hisar	400/-	
		Stationery Items	M/s New international stationers, Hisar	760/-	
Total					104510/-

Summary Report of the Short-Term Course (STC)
On
CAD/CAM

Department of Mechanical Engineering organized a Short-Term Course (STC) on 'CAD/CAM' for B.Tech Mechanical Engineering students of the University and its affiliated colleges from 23.09.2018 to 31.10.2018. The aim of this program was to impart knowledge of computer aided design and manufacturing techniques and their applications in engineering.

Course objectives: -

1. Impart knowledge of computer aided design and manufacturing (CAD/CAM) techniques.
2. Develop programming and operating skills for computer numerical control (CNC) machines.
3. Enable students understand various stages of product development and their management.

Course outcomes: -

1. Creation of part drawings and 3D models using CAD techniques.
2. Generation of part programs for industrial components using CAM techniques.
3. Skills to program and operate CNC machines.
4. Ability to develop a product from conceptualization to reality.

This program was organized with the following details:

Fee	Rs. 5000
Intake	15 candidates (on first come first serve basis)
Eligibility	Pursuing B Tech Mechanical Engineering
Certification	Admitted participants received certificates after successful completion
Venue	CNC Lab, Department of Mechanical Engineering

Raj