Outlook

MITS Communication/ Report on One Day National Level Workshop/ Department of Mechanical Engineering/ 18.10.2023

From Vice Principal Administration <viceprincipaladministration@mits.ac.in>
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A Report on

A One Day National Level Student Workshop

on

"Industrial Project ideas on Emerging Technologies of 3D Printing, CNC Machining & Robotics for Engineering Applications"

Organized by

Department of Mechanical Engineering

on

18.10.2023

Submitted by: Mr. H. Raghavendra, and Mr. Jagannath Pattar, Asst. Professor Department of ME, MITS

No. of Students attended: 142

Resource Persons:

1. **Dr. Anantha Raman L, Asst. Professor, Dept. of ME, MITS**
2. **Mr. Pujari Rajesh, Asst. Professor, Dept. of ME, MITS**
3. **Mr. K. Prasad, CNC Trainer, Dept. of ME, MITS**

Report Received on 15.11.2023

Objective of the Workshop:

This one-day national level workshop will provide an in-depth understanding of the latest trends and technologies in the advanced manufacturing, mainly focusing on additive manufacturing, CNC, and robotics. Participants will learn about the principles and applications of these technologies, as well as the skills needed to succeed in advanced manufacturing career. The workshop content covers the topics such as need of additive manufacturing processes, CNC machining, robotics and its case studies. Participants will also have the opportunity to participate in hands-on training sessions on Smarturn CNC machine, 3D printer and Robotics. This workshop is ideal for anyone who interested in learning about advanced manufacturing and its latest technologies.

Course Contents:

1. Introduction to robotics, concepts of Coding & Programming.
2. Hands on training on emulators, sensors & actuators and activities on robotics.
3. Overview of 3D printing and it's applications
4. Innovation through additive manufacturing in medical implants
5. Concepts of CNC Programming
6. Demonstration & Hands on practical training in CNC Machine.

Inauguration:

The program started at 9:30 AM in Seminar Hall A by **Mr. Jagannath Pattar**, Assistant Professor, ME with a grand welcome to the Resource Persons, HOD, Dean Administration, Principal, Faculty members and participants followed by light lamp**.** The students from various department such as Computer Science Engineering, Computer Science & Technology, Data Science, Cyber Security, Artificial Intelligence, Electronics and Communication, Civil Engineering other than Mechanical Engineering were participated in the workshop.

Dr. S. Baskaran, Head of the Department, ME, heartily invited resource person, participants from various departments to the workshop. He discussed the purpose of conducting this workshop. He congratulated especially the participants from other departments for attending the workshop and he elaborated the importance of CNC, 3D printing and Robotics in various engineering applications and he motivated the participants to do a multidisciplinary project based on the outcome of this workshop. He welcomed and requested the participants to make use of various facilities available in Mechanical engineering labs and utilize resource persons expertise for their projects.

Dr. Sreemanth Basu, Dean Administration congratulated the entire Mechanical Engineering department for organizing the national level student workshop.

Dr. C. Yuvaraj, Principal congratulated the coordinators for organizing the program and requested the participants to utilize the opportunity to get various project ideas on advanced manufacturing engineering related to industrial applications.

Theory Session:

Mr K Mohammad Azmathullah & B. Sravani Students (III Year), Department, ME, introduced the resource persons to the participants by reading the profile of **Dr. Anantha Raman L, Mr. Pujari Rajesh** Asst. Professor, Dept. of ME, MITS. & **Mr. K. Prasad,** CNC Trainer, Dept. of ME, MITS and later the session handed over to the resource persons.

The resource persons started the session by extending his heartily thanks to the participants organizing members, HOD, Principal and Management of MITS, Madanapalle for giving the opportunity to share their knowledge and experience in Emerging Technologies of 3D Printing, CNC Machining & Robotics.

Mr. K. Prasad handled the session from 10.00 - 11.00 AM, he discussed about the various concepts of CNC machining, need and importance of CNC machines in various industry. **Mr. Rajesh** handled the session from 11.00 – 12.00 PM, he elaborately discussed on each and every process of 3D printing including advantages, disadvantages and applications. **Dr. Anantha Raman** handled the session from 12.00 – 1.00 PM, he discussed the benefits of robotics in various industries and given so many practical examples why the robots are required. At the end of each session, the resource persons gave so many project ideas related to different industrial applications and

daily life applications such as aerospace, automotive, agriculture, computers, electronics to the participants. Students were so interested, motivated and interacted with resource persons.

Hands-on Training Session:

The hands-on training given to the participants in the afternoon session from 2.00 – 5.00 PM at Siemens lab for CNC machining, 3D printing lab and Robotics lab. Initially, the demonstration is done on basic operations of above-mentioned areas followed by training. The students were trained on the basics of programming in CNC and Robotics.




Valedictory Session:

The valedictory session was conducted at Seminar Hall A at 5.00 PM headed by **Dr. C. Kamal Basha**, Vice Principal, Administration. **Mr. Raghavendra H**, Asst. Professor MITS, Madanapalle conveyed his sincere thanks to the participants from various departments, resource persons, Management, Principal and ME department faculty members for extending their support and successful completion of workshop. He specially thanked the student coordinators of the ME department for their excellent support during registration, arranging the facility at Seminar Hall A and guiding the participants during the hands-on training sessions.

Feedback session:

The feedback session is conducted by **Mr. Jagannath Pattar**, where he thanked once again the Management and Principal for giving permission and financial support to organize this workshop. Later, students were asked to give feedback, many of them shared their experience and they felt happy for attending this type of workshop and they got clear exposure about industrial applications of all the three areas**.**

Outcome of the Workshop:

Students understood the importance of advanced manufacturing.
Students gained the basic knowledge on 3D Printing, CNC Machining & Robotics
Students trained on 3D Printing, CNC Machining & Robotics
Students explored with various project ideas on industrial applications

Certificate Distribution:

After the valedictory, the Memento and lecture delivery certificates given to the resource persons and organizers by Vice Principal Administration, HOD.

Finally, the participation certificate was distributed to the participants by Vice Principal Administration, HOD, Resource persons and event Coordinators.

PAPER CLIPS:

మెకానికల్ రంగానికి ఉజ్వల భవిష్యత్

కురబలకోట, అక్టోబరు 18: మెకానికల్ రంగానికి ఉజ్వల భవిష్యత్ ఉందని మిట్స్ ప్రిన్సిపాల్ సి.యుగరాజ్ విద్యార్థులకు పిలుపునిచ్చారు. మండలంలోని మిట్స్ ఇంజనీరింగ్ కళాశాలలో మెకానికల్ విభాగం ఆధ్వర్యంలో ఎమర్జింగ్ టెక్నాలజీస్ ఆఫ్ 3డి ప్రింటింగ్ సిమెన్స్‌ని మేచినింగ్ అండ్ రోబోటిక్స్ పర్ ఇంజనీరింగ్ అప్లికేషన్స్‌పై బుధవారం వర్క్‌షాప్‌ను నిర్వహించారు.. ఈ సందర్భంగా ప్రిన్సిపాల్ మాట్లాడుతూ రానున్న రోజుల్లో 3డి ప్రింటింగ్‌కు డిమాండ్ పెరగనుందన్నారు. అలాగే విద్యార్థులు పరిశోధనలపై దృష్టి సారించి రాణించాలన్నారు. ఈ కార్యక్రమంలో విభాగాధిపతి భాస్కరన్, కన్వీనర్‌లు జగన్నాథ్, రాఘవేంద్ర, కో-కన్వీనర్ నగేష్ తదితరులు పాల్గొన్నారు.

మిట్స్ విద్యార్థులు 3డిపై దృష్టి పెట్టండి

Thursday 19 October, 2023

There will be huge demand for 3D printing,CNC Machining & Robotics related applications in the future

(By Our Skyline Staff Reporter)

Madanapalle, October 18: Department of Mechanical Engineering at Madanapalle Institute of Technology & Science, Madanapalle conducted a workshop for the students on Emerging Technologies of 3D Printing, CNC Machining & Robotics for Engineering Applications. The program was inaugurated by Dr C Yuvaraj, Principal of the College by lightens the Jyothi. Speaking in the program, he said that the demand for 3D printing will increase in the future and the applications related to it are also likely to increase. He said that 3D printing may be necessary for transplantation of human organs especially in hospitals, and the technology is currently developing in this regard. He said that the use of this technology is going to increase exponentially in the future due to many advantages like speed, efficiency, simplicity, design freedom, reliability, accuracy and job opportunities for students will also improve. Apart from that, the use of Computer Numerical Control (CNC) machines is increasing day by day. He said that in the mechanical field, robotics will stand at the highest position in the future and students should increase their understanding and research on these. Head of Department Dr Bhaskaran, Convenors Jagannath Pattar, Raghavendra, Co-Convenor Nagesh faculty and students participated in this program.

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3డి ప్రింటింగ్ టెక్నాలజీదే భవిష్యత్తు

- మిట్స్ కళాశాల ప్రిన్సిపల్ డాక్టర్ సి.యువరాజ్

'మిట్స్'లో రోబోటిక్స్ ఇంజనీరింగ్‌పై వర్క్‌షాప్

ప్రజాశక్తి–మదనపల్లె అర్బన్

మిట్స్ కళాశాలలో ఎమర్జింగ్ టెక్నాలజీస్ ఆఫ్ 3డి ప్రింటింగ్, సిఎన్‌సి మెషినింగ్ రోబోటిక్స్ ఫర్ ఇంజనీరింగ్ అప్లికేషన్స్‌పై వర్క్‌షాప్‌ను విద్యార్థులకు నిర్వహించినారు. ఈ కార్యక్రమాన్ని కళాశాల ప్రిన్సిపల్ డాక్టర్ సి.యువరాజ్ జ్యోతి ప్రజ్వలన చేసి ప్రారంభించి మాట్లాడుతూ భవిష్యత్తులో 3డి ప్రింటింగ్‌కు డిమాండ్ పెరగనుందని, దానికి సంబంధించిన అప్లికేషన్స్కూ కూడా భారీగా పెరిగే అవకాశం ఉందని పేర్కొన్నారు. ఆసుపత్రుల్లో మానవ అవయవాల ట్రాన్స్ ప్లాంటేషన్ కోసం త్రీడీ ప్రింటింగ్ అవసరం కావచ్చు అని, ప్రస్తుతం దీని పై టెక్నాలజీ అభివృద్ధి చెందుతూ ఉంటుందని తెలిపారు. వేగం, సామర్థ్యం, సరళత, డిజైన్ ఫ్రీడం, విశ్వసనీయత, కచ్చితత్వం వంటి అనేక ప్రయోజనాల కారణంగా ఈ టెక్నాలజీ వినియోగం భవిష్యత్తులో విపరీతంగా పెరగబోతోందని చెప్పారు. విద్యార్థులకు ఉద్యోగ అవకాశాలు మెరుగుగా ఉంటాయన్నారు. కంప్యూటర్ న్యూమరికల్ కంట్రోల్ మెషీన్ల వాడకం రోజు రోజుకు ఎక్కువ అవుతున్నదన్నారు. మెకానికల్ రంగంలో రోబోటిక్స్ భవిష్యత్తో అత్యున్నత స్థానంలో నిలుస్తుందని తెలిపారు. కార్యక్రమంలో విభాగాధిపతి డాక్టర్ భాస్కరన్, కన్వీనర్లు జగన్నాథ్ పట్టార్, రాఘవేంద్ర రాఘవేంద్ర, కో–కన్వీనర్ నగేష్ అధ్యాపకులు మరియు విద్యార్థులు పాల్గొన్నారు.

మాట్లాడుతున్న ప్రిన్సిపల్ యువరాజ్

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With regards,

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