ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

Shobhavana Campus, Mijar – 574225, Moodbidri.
Dakshina Kannada Karnataka, India.

ALVA'S
Education Foundation®

Department of Mechanical Engineering

CERTIFICATION COURSE

on

"CNC WORKSHOP"

ACADEMIC YEAR

2019-2020

ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY
Shobhavana Campus, Mijar, Moodbidri – 574 225
Phone: 08258-262725 Fax: 08258-262726
DEPARTMENT OF MECHANICAL ENGINEERING

Date: 15/sept/2019
Place: AIET, Moodbidri.

APPROVAL LETTER

To,

The Principal,
AIET, Moodbidri

Respected Sir,

Sub: - Approval for Organizing the Students Certification/Training Program on "CNC Workshop"-Reg.

With reference to the subject cited above, I would like to bring to your kind notice that, the Department is planning to host a Student Training Program/certification course on "**CNC Workshop**" from "**27th September 2019 to 1st October 2019**".

Kindly consider the above request and approve the same for further proceedings.

Thanking you Sir.

Coordinator:

Mr. Pramodkumar N

Mr. Hemanth S

Head of the Department:

H. O. D.
Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

Principal:

PRINCIPAL
Alva's Institute of Engg. & Technology,
Mijar, MOODBIDRI - 574 225, D.K

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DEPARTMENT OF MECHANICAL ENGINEERING

Dated : 15/Sept/2019

CIRCULAR

The Certification course/ Workshop on **Computer Numerical Control,** will be conducting from **27th Sepetmber 2019 to 1st October 2019** in **CNC Lab,** Mech block, AIET, Mijar. All registered students are hereby informed to attend and actively participate in the course.

H.O.D (HOD)
Dept. Of Mechanical Engineering
Alva's Institute of Engg. & Technology
Mijar, MOODBIDRI - 574 225

Resource Person

Mr. Pramodkumar N & Mr Hemanth S

AIET, Moodbidri

Convener:

Dr. Satyanarayan

Associate Prof. Department of ME

Coordinators:

1. **Prof. Pramod V B, AIET**
   Mob: 9916392291
   Email id: pramodvab@gmail.com

2. **Mr. Praveen K C**
   Mob: 9739933530
   Email id: praveenkc.ken@gmail.com

ABOUT THE INSTITUTION

Alva's Education Foundation (AEF) established in 1995 with the vision of our Chairman Dr. M. Mohan Alva has succeeded in making Moodbidri, an Educational hub in the South Canara Region, with more than 25000 students pursuing various courses ranging from primary school to post-graduate courses in social sciences, pure sciences, engineering and management. There are 21 institutions functioning under the Alva's Education Foundation.

Alva's Institute of Engineering and Technology, Moodbidri is a Premier Engineering Institute of Alva's Education Foundation, established in the year 2008. The college is certified to the ISO 9001: 2008 standards. The institute offers top quality education in five under graduate programs in Engineering- Computer Science, Civil, Electronics & Communications, Information Science, and Mechanical Engineering- Three Post Graduate programs- Master of Technology in Thermal Power Engineering, Computer Science & Engineering, VLSI Design Embedded System and Master of Business Administration

Alva's Institute of Engineeri and Technology, Moodbid

ALVA'S
Education Foundation

5 days Certification course/Workshop on

"Computer Numerical Con

From 27th Sep to 1st Oct 2019

Organized by

Department of Mechanical Engineeri

Venue: CNC lab, Mech Building, AIET,

ABOUT ME DEPARTMENT

The Department was started in the year 2008 Department of Mechanical Engineering was established in the year 2008 with an intake of 60 and has enhanced to 180 from academic year 2012□13. The Post Graduate course, M.Tech in Thermal Power Engineering was introduced from the academic year 2012-13 with an intake of 18 students. Department is recognized as a research centre by VTU. Department is actively involved in Curricular and extracurricular activities in associations with professional bodies. The main objective of the department is to provide academic excellence, knowledge and nurture talent in the area of Mechanical Engineering. The department has started Bio Diesel research testing centre in the campus to explore in the area of Alternative Fuels.

Department vision is to develop Quality Mechanical Engineers to meet the ever growing and ever changing needs of the economy. The Department is committed to provide high quality technical education at under graduate and post graduate level by means of state of art curriculum with best teaching-learning process.

COURSE CONTENT

Machine tool programs

Industrial environments

Software commands

Types of lathes

Calculating RPM

PROGRAM SCHEDULE

27-September- 2019

Inauguration:	09:30 am to 10:00 am
Keynote Address:	10:00 am to 11:00 am
Tea Break:	11:00 am to 11:15 am
Session 1:	11:15 am to 01:00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 2:	02:00 pm to 05:00 pm

28-September- 2019

Session 3:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 4:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 5:	02:00 pm to 05:00 pm

29-September- 2019

Session 6:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 7:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 8:	02:00 pm to 05:00 pm

30-September- 2019

Session 9:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 10:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 11:	02:00 pm to 05:00 pm

01-October- 2019

Session 12:	09.00 am to 11:00 am
Tea Break:	11.00 am to 11.20 am
Session 13:	11.20 am to 01.00 pm
Lunch Break:	01:00 pm to 02:00 pm
Session 14:	02:00 pm to 05:00 pm

VISION OF THE DEPARTMENT

Impart Quality Technical Education to excel in Mechanical Engineering to meet the needs of the community

MISSION OF THE DEPARTMENT

1. Empower student knowledge in basic and applied areas of Mechanical Engineering
2. Strengthening collaboration with industries, research organizations and institutes for internship, joint research and consultancy
3. To inculcate entrepreneurial skills and human values in order to cater the needs of society
4. Exposure to industrial practices for managerial skills and professionalism

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DEPARTMENT OF MECHANICAL ENGINEERING

Attendance List Of Students For CNC workshop

SLN	USN	NAME
1.	4AL18ME001	Amith Kumar B
2.	4AL18ME002	Annapurna V Patil
3.	4AL18ME003	Arun Kumar P G
4.	4AL18ME004	Basavaraj R Gaji
5.	4AL18ME005	Bharath B T
6.	4AL18ME020	Bhushan R Kundar
7.	4AL18ME006	Bipin Waikhom
8.	4AL18ME007	Charan D B
9.	4AL18ME008	Charan Raj R
10.	4AL18ME009	Chiranth P
11.	4AL18ME010	Dheeraj H Tandel
12.	4AL18ME011	Elish Ganesh
13.	4AL18ME012	Gaurav Chandrashekar S
14.	4AL18ME013	Gautham S N
15.	4AL18ME014	Harshith T K
16.	4AL18ME015	Janardhan J
17.	4AL18ME016	Jayanth L U
18.	4AL18ME017	Karanam Lalith Yashwanth
19.	4AL18ME018	Karthik
20.	4AL18ME019	Keerthan Subhashchandra
21.	4AL18ME021	M Pratheek Shet
22.	4AL18ME022	Megharaj A Kencharaddi
23.	4AL18ME023	Muzammil Chitragar
24.	4AL18ME024	Nabisharif
25.	4AL18ME025	Nishanth
26.	4AL18ME026	Preetham S
27.	4AL18ME027	Puneeth Kumar D N
28.	4AL18ME028	Ranson Ashray Carvallo
29.	4AL18ME029	Shetty Yashas Harish
30.	4AL18ME030	Shivaprasad Sangana G
31.	4AL17ME065	Shreyas Tiwari
32.	4AL18ME031	Vidyashankar
33.	4AL18ME032	Vyshnav S B
34.	4AL18ME033	Yashwanth K
35.	4AL18ME700	Abdul kareem
36.	4AL18ME702	Krishna
37.	4AL18ME701	Kalyan Kumar D
38.	4AL18ME703	Kushal

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39.		MAHESH S CHIKKURMATH
40.		MANOJ H J
41.		NAGACHANDRU B M
42.		MOHAMMED SAMEER G
43.		SHRISHAIL BIRADAR
44.	Lateral Entry	KALAKESH S H
45.	4AL18ME704	Sandeep S
46.	4AL18IS016	P POOJA
47.	4AL18EC021	HARSHITHA S
48.	4AL18CS073	SAGAR LONI
49.	4AL18CS086	SOMASHEKAR G
50.	4AL18CV021	MOHAMMED SHAIB

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Mijar, MOODBIDRI

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DEPARTMENT OF MECHANICAL ENGINEERING

Attendance List Of Students For CNC workshop

SLN	USN	NAME	27-09-19		28-09-19		29-09-19		30-09-19		31-09-19		01-09-19	
			FN	AN	FN	AN	FN	AN	FN	AN	FN	AN	FN	AN
1.	4AL18ME001	Amith Kumar B	P	P	P	P	P	P	P	P	P	P	P	P
2.	4AL18ME002	Annapurna V Patil	P	P	P	P	P	P	P	P	A	P	P	P
3.	4AL18ME003	Arun Kumar P G	P	P	P	P	P	P	P	P	P	P	P	P
4.	4AL18ME004	Basavaraj R Gaji	P	P	P	P	P	P	P	P	P	P	P	P
5.	4AL18ME005	Bharath B T	P	P	P	P	P	P	P	P	P	P	P	P
6.	4AL18ME020	Bhushan R Kundar	P	P	P	A	P	P	P	P	P	P	P	P
7.	4AL18ME006	Bipin Waikhom	P	P	P	P	P	P	P	A	A	P	P	P
8.	4AL18ME007	Charan D B	P	P	P	P	P	P	P	P	P	P	P	P
9.	4AL18ME008	Charan Raj R	P	P	P	P	P	P	P	P	P	P	P	P
10.	4AL18ME009	Chiranth P	P	P	P	P	P	P	P	P	P	P	P	P
11.	4AL18ME010	Dheeraj H Tandel	P	P	P	P	P	P	A	P	P	P	P	P
12.	4AL18ME011	Elish Ganesh	P	P	P	P	P	P	P	P	P	P	P	P
13.	4AL18ME012	Gaurav Chandrashekar Sanil	P	P	P	P	P	P	P	P	P	P	P	P
14.	4AL18ME013	Gautham S N	P	P	P	P	P	P	P	P	P	P	P	P
15.	4AL18ME014	Harshith T K	P	P	P	P	P	P	P	P	P	P	P	P
16.	4AL18ME015	Janardhan J	P	P	P	P	P	P	P	P	P	P	P	P
17.	4AL18ME016	Jayanth L U	P	P	P	A	A	P	P	P	P	P	P	P
18.	4AL18ME017	Karanam Lalith Yashwanth	P	P	P	P	P	P	P	P	P	P	P	P
19.	4AL18ME018	Karthik	P	P	P	P	P	P	P	P	P	P	P	P
20.	4AL18ME019	Keerthan Subhashchandra Kuckian	P	P	P	P	P	P	P	P	P	P	P	P
21.	4AL18ME021	M Pratheek Shet	P	P	P	P	P	P	P	P	P	P	P	P
22.	4AL18ME022	Megharaj A Kencharaddi	P	P	P	P	P	P	A	A	P	P	P	P
23.	4AL18ME023	Muzammil Chitragar	P	P	P	P	P	P	P	P	P	P	P	P
24.	4AL18ME024	Nabisharif	P	P	P	P	P	P	P	P	P	P	P	P
25.	4AL18ME025	Nishanth	P	P	P	P	P	P	P	P	P	P	P	P
26.	4AL18ME026	Preetham S	A	A	P	P	P	P	P	P	P	P	P	P
27.	4AL18ME027	Puneeth Kumar D N	P	P	P	P	P	P	P	P	P	P	P	P
28.	4AL18ME028	Ranson Ashray Carvallo	P	P	P	P	P	P	P	A	A	P	P	P
29.	4AL18ME029	Shetty Yashas Harish	P	P	P	P	P	P	P	P	P	P	P	P
30.	4AL18ME030	Shivaprasad Sangana Goudajirli	P	P	P	P	A	P	P	P	P	P	P	P
31.	4AL17ME065	Shreyas Tiwari	P	P	P	P	P	P	P	P	P	P	P	P
32.	4AL18ME031	Vidyashankar	P	P	P	P	A	P	P	P	P	P	P	P
33.	4AL18ME032	Vyshnav S B	P	P	P	P	P	P	P	P	P	P	P	P
34.	4AL18ME033	Yashwanth K	P	P	P	P	A	P	P	P	P	P	P	P

Dept. of Mechanical Engineering
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DEPARTMENT OF MECHANICAL ENGINEERING

35.	4AL18ME700	Abdul kareem	P	P	P	P	P	P	P	P	P	P	P	P
36.	4AL18ME702	Krishna	P	P	P	P	P	P	P	P	P	P	P	P
37.	4AL18ME701	Kalyan Kumar D	P	P	P	P	P	P	A	A	P	P	P	P
38.	4AL18ME703	Kushal	P	P	P	A	A	P	P	P	P	P	P	P
39.	Lateral Entry	MAHESH S CHIKKURMATH	P	P	P	P	P	P	P	P	P	P	P	P
40.		MANOJ H J	P	P	P	P	P	P	P	P	P	P	P	P
41.		NAGACHANDRU B M	A	A	P	P	A	A	A	A	P	P	P	P
42.		MOHAMMED SAMEER G	P	P	P	P	P	P	P	P	P	P	P	P
43.		SHRISHAIL BIRADAR	P	P	P	P	P	P	P	A	A	P	P	P
44.		KALAKESH S H	P	P	A	A	P	A	P	P	P	P	P	P
45.	4AL18ME704	Sandeep S	P	P	P	P	P	P	P	P	P	P	P	P
46.	4AL18IS016	P POOJA	P	P	P	P	P	P	P	P	P	P	P	P
47.	4AL18EC021	HARSHITHA S	P	P	P	P	P	P	P	P	P	P	P	P
48.	4AL18CS073	SAGAR LONI	P	P	P	P	P	P	P	P	P	P	P	P
49.	4AL18CS086	SOMASHEKAR G	P	P	P	P	P	P	P	A	A	P	P	P
50.	4AL18CV021	MOHAMMED SHAIB	P	P	P	P	P	P	P	P	P	P	P	P

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DEPARTMENT OF COMPUTER MECHANICAL ENGINEERING

Quiz on CNC Workshop Course

1. In machining of a workpiece, the material is removed by____
a) drilling action
b) melting action
c) shearing acting
d) using brittleness of the material

2. The depth that the tool is plunged into the surface is called as ____
a) feed
b) depth of cut
c) depth of tool
d) working depth

3. Feed is measured in units of ____
a) length/revolution
b) degree/revolution
c) length
d) velocity

4. CNC machining centres do not include operations like ____
a) milling
b) boring
c) welding
d) tapping

5. In CNC systems multiple microprocessors and programmable logic controllers work ____
a) in parallel
b) in series
c) one after the other
d) for 80% of the total machining time

6. Which of the following is not the advantage of CNC machines?
a) Higher flexibility
b) Improved quality
c) Reduced scrap rate
d) Improved strength of the components

7. In how many ways CNC machine tool systems can be classified?
a) 2
b) 3
c) 4
d) 5

8. Point-to-point systems are used for ____
a) reaming
b) parting
c) grooving
d) facing

9. In part programming, interpolation is used for obtaining _____ trajectory.
a) helicoidal
b) pentagonal
c) triangular
d) zig-zag

10. For CNC machining skilled part programmers are needed.
a) True
b) False

11. An absolute NC system is one in which all position coordinates are referred to one fixed origin called the zero point.
a) True
b) False

6.Application running in foreground but currently not receiving any events.What is the current state of Application?
a)Background state
b)Inactive State
b)Suspended state
c)Active State

7. When referring to CNC programming, which of the following is the command coed to move the tool in the clockwise direction?
A. G01
B. G02
C. G03
D.G17

8. When referring to the elements of word address CNC programming, a "1" bit is a representation of a/an _____ condition.
A. On
B. Emergency
C. Off
D. Ultimate

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DEPARTMENT OF COMPUTER MECHANICAL ENGINEERING

Quiz on CNC Workshop Course

9. Which of the following operations will produce a hole with 45 degree chamfers?
A. Blind hole drilling.
B. Spot drilling.
C. Center drilling.
D. Counter sinking.

10. The most common type of feed drives used on CNC machines is the:
A. Electric servo motor.
B. Hydraulic drive.
C. Manual crank.
D. Manual/hydraulic system.

11. When referring to CNC tapping operations, what does the acronym TDS stand for?
A. Tap Drilling Speed
B. Total Diameter Size
C. Tap Drill Size
D. Tap Down Speed

12. When referring to CNC operations, an excessive surface cutting speed will result in:
A. Extended tool life.
B. A longer time to machine the workpiece.
C. Rapid tool wear.
D. A decreased use of coolant.

13. What is a major disadvantage of the vertical spindle machining centers?
A. They can handle heavy workpieces.
B. Chips accumulate on top of the workpiece.
C. Some of the spindles have vertical motion.
D. The crosslide can move transversally.

14. When referring to CNC programming, which of the following multiple hole patterns is typically the simplest to program?
A. An arc hole pattern.
B. A bolt hole circle.
C. A linear hole pattern.
D. An angular hole pattern.

15. The coolant system of a CNC machine would most commonly be a _____ pump.
A. Low pressure
B. Medium pressure
C. High pressure
D. Gravity

15/20

Training Evaluation Form

Date: 27th Sept to 01st Oct 2019

Title: CNC

Trainer: Hemanth.S & Prashadkumar N

Instructions: Please indicate your level of agreement with the statements listed below in #1-11.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The objectives of the training were clearly defined.	☐	☑	☐	☐	☐
2. Participation and interaction were encouraged.	☑	☐	☐	☐	☐
3. The topics covered were relevant to me.	☐	☑	☐	☐	☐
4. The content was organized and easy to follow.	☐	☐	☑	☐	☐
5. The materials distributed were helpful.	☐	☐	☑	☐	☐
6. This training experience will be useful in my work.	☐	☑	☐	☐	☐
7. The trainer was knowledgeable about the training topics.	☐	☑	☐	☐	☐
8. The trainer was well prepared.	☑	☐	☐	☐	☐
9. The training objectives were met.	☐	☑	☐	☐	☐
10. The time allotted for the training was sufficient.	☐	☑	☐	☐	☐
11. The meeting room and facilities were adequate and comfortable.		☑	☐	☐	☐

☐

12. What did you like most about this training?

Live CNC training with hands on experience

13. What aspects of the training could be improved?

Number of days training should be increased

14. How do you hope to change your practice as a result of this training?

15. What additional trainings would you like to have in the future?

Training should be for more days

16. Please share other comments or expand on previous responses here:

Thank you for your feedback!

ALVA'S INSTITUTE OF ENGINEERING & TECHNOLOGY
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A Unit of Alva's Education Foundation®
(Affiliated to VTU, Belagavi and Approved by A.I.C.T.E., New Delhi)
Shobhavana Campus, Mijar, Moodbidri DK Karnataka-574225

DEPARTMENT MECHANICAL ENGINEERING

Certificate

This is to certify that Mr./Ms. Bipin Waikhom bearing the USN 4AL18ME006 from Mechanical Department has attended the Students Workshop Program on "Computer Numerical Control" from 27th September 2019 to 1st October 2019.

Mr. Hemanth S
Coordinator

Head of the Department
Mechanical Engineering

Dr. Peter Fernandes
Principal
AIET Moodbidri

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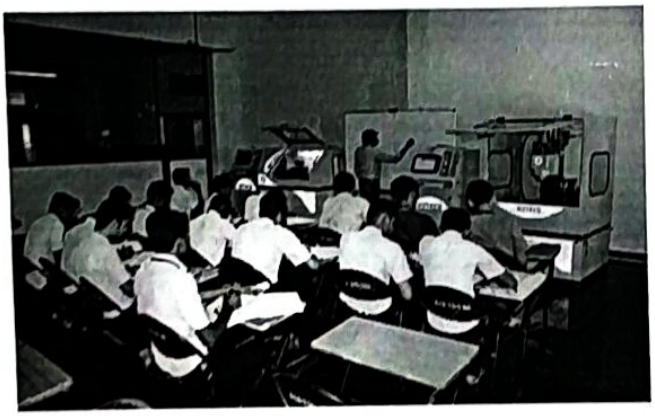
DEPARTMENT OF MECHANICAL ENGINEERING

REPORT ON

Computer Numerical Control

Department of Mechanical Engineering, AIET, Mijar organized a **5 days Certification Course/Workshop** on "Computer Numerical Control" s on **27th Sep to 1st Oct 2019**. The workshop/certification course was inaugurated by, Dr. Satyanarayan, from Dept. ME and all staff members and student volunteers were also present during the inauguration function and also total **46 participants** had been attended this certification course.



For candidates especially for diploma, ITI and Mechanical students who have urge in enhancing skills in the field of CNC machining & knowledge on part programming & operation of CNC machines our department has conducted the second 5 day workshop in the current academic year. It is almost like one of the mandatory fields to be trained in for those who choose their professional life once they come out from their educational institutes. Understanding the trend of the market in this regard and going by the standards and state of the art facilities possessed by AIET, During this training, they have learnt the basics of programming, the simulation software called See NC Turn and See NC and Mill hands on training on both CNC Turning and Milling machines.

This program aims at exposing CNC Turning & Milling to the Diploma /ITI students, enables them to understand, explore, research and contribute to the domain. We are also providing hands on classes in CNC turning & milling, which will be helpful to understand the theory part CNC programming.

Coordinator

HOD
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