RajaRajeswari College of Engineering

(Approved by AICTE, New Delhi, Govt. of Karnataka, Affiliated to Visvesvaraya Technological University, Belagavi)
#14, Ramohalli Cross, Kumbalgodu, Mysore Road, Bengaluru – 560074

Department of Robotics and Automation

Faculty Knowledge Enhancement

NAME OF THE DEPARTMENT: Department of Robotics and Automation

1. Type of Event   :   AICTE Training And Learning (ATAL) Academy Offline FDP on

                 "AICTE-ATAL Idea Lab Basic Faculty Development Program

                 (Hands-on Training)

                 Visvesvaraya Technological University-CPGS

                 Muddenhalli, Chickballapur (Dt)

2. Date of the programme   : 7th - 11th August 2023

3. Faculty member participated: Dr.K.C.Vishwanath

                          Associate Professor

                          Department of Robotics and Automation

                          RajaRajeswari College of Engineering

                          Bengaluru 560074

4. Outcome of the Programme:

- 3D printing and its programming using MakerBot software
- IoT
- PLC
- Laser Cutting 3D Printing
- CNC Woodcutter
- Embedded System Design Software for PIC Micro Controller
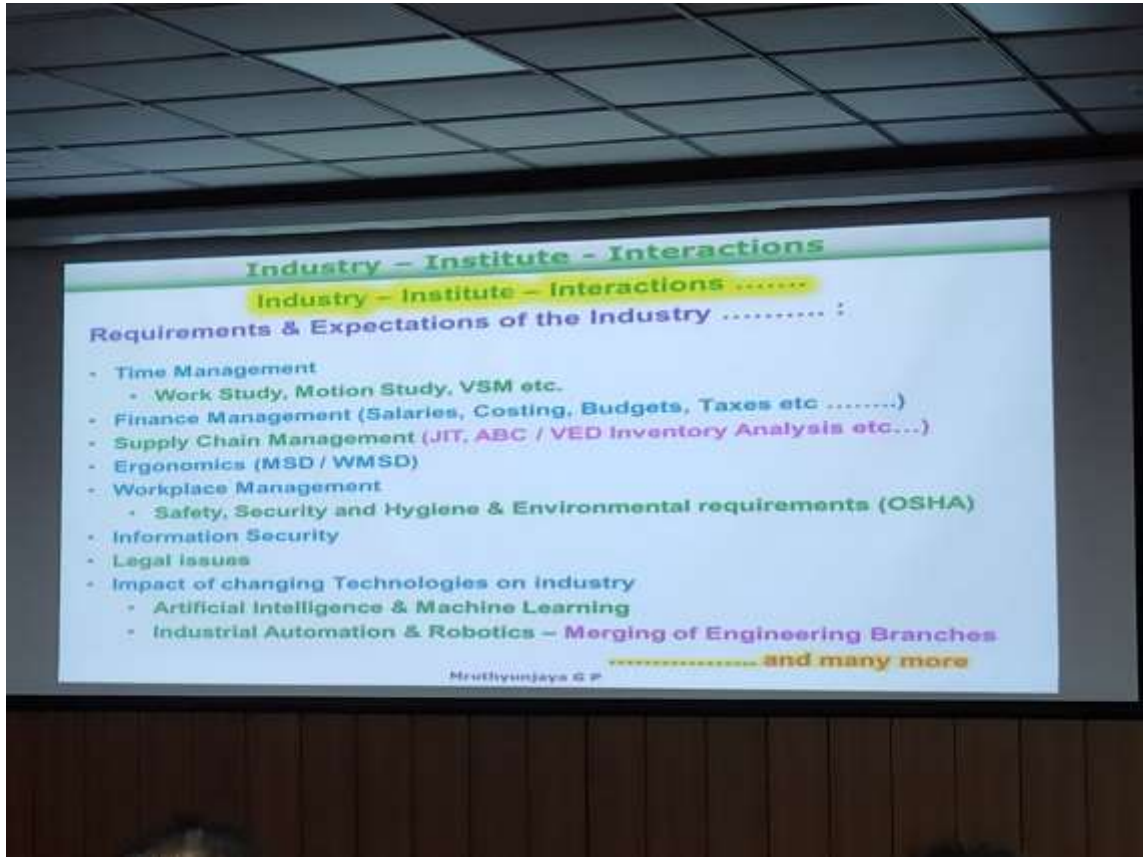- PCB Design software

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Inauguration of the FDP

Dr K C Vishwanath with the participants during the FDP

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During the FDP
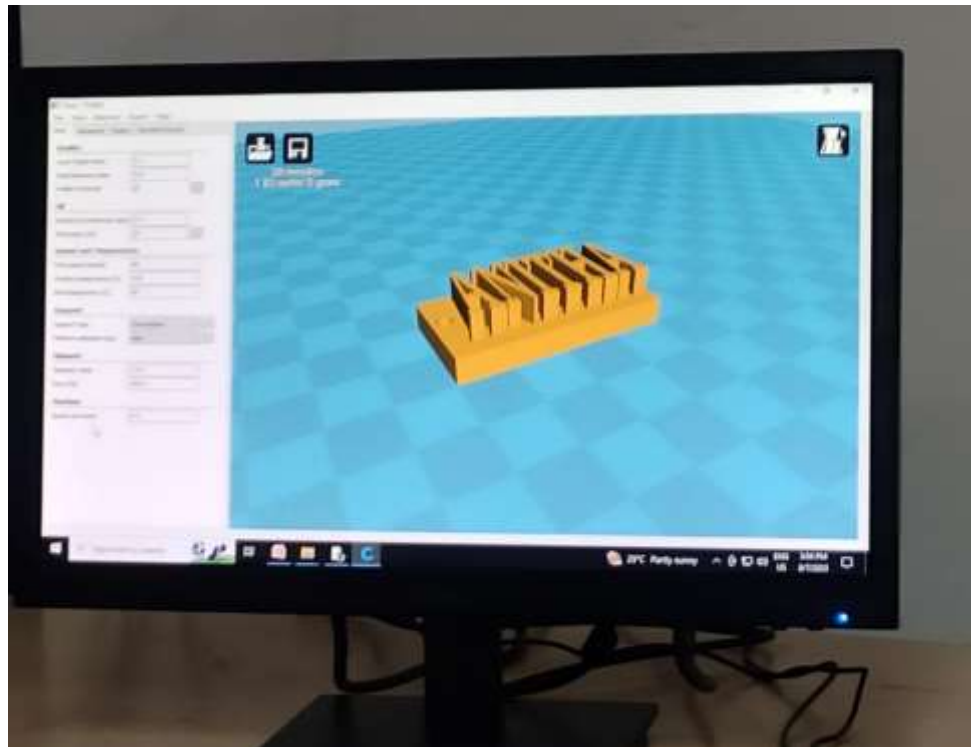
MakerBot 3D Printing software

AICTE IDEA IOT Lab

Laser Curring machine

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8/14/23, 9:12 AM　　　Gmail - Fwd: Participation confirmation for the AICTE-ATAL IDEA Lab Basic Faculty Development Programme from 07th to 11th A...

M Gmail　　　　　　　　　　　karthikeyan muthu <mkarthikeyan1968@gmail.com>

Fwd: Participation confirmation for the AICTE-ATAL IDEA Lab Basic Faculty Development Programme from 07th to 11th August 2023-reg.

Dr. Vishwanath K C <vishwa8160@gmail.com>　　　　　　14 August 2023 at 09:04
To: karthikeyan muthu <mkarthikeyan1968@gmail.com>

---------- Forwarded message ---------
From: **AICTE-ATAL IDEA LAB** <vtuidealab@gmail.com>
Date: Fri, 4 Aug, 2023, 1:45 pm
Subject: Participation confirmation for the AICTE-ATAL IDEA Lab Basic Faculty Development Programme from 07th to 11th August 2023-reg.
To: <m.chintu.mamatha@gmail.com>, <drpiy1@gmail.com>, <tnpmech@bmsit.in>, Manjunath Chowdappa <mcmanju2003@gmail.com>, <nagarajdc@bmsit.in>, <shivakumarat@bmsit.in>, Dr. Vishwanath K C <vishwa8160@gmail.com>

Dear Participants,

I welcome your interest shown towards the AICTE-ATAL IDEA Lab Basic Faculty Development Programme from 07th to 11th August 2023.

The Inauguration ceremony will start at 10:00 AM on 07th August 2023. Hope you will have a good takeaway from this Training Programme.

We have already added the registered Participants to Whatsapp Group, if we have missed, kindly scan the QR Code and join the Group for regular updates of the Program and for easy communication with the organizers .

Coordinator
AICTE-ATAL IDEA LAB
Visvesvaraya Technological University
Muddenahalli, Chickballapur-562101

https://mail.google.com/mail/u/0/?ik=18886e8150&view=pt&search=all&permmsgid=msg-f:1774173879991228375&simpl=msg-f:17741738799912283...　1/1

Participation confirmation to attend the "AICTE-ATAL Idea Lab Basic Faculty Development Program

(Hands-on Training)

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List of Software

List of Softwares for "IDEA LAB FDP"

1. Onshape : Design Cloud Based Software Onshape is the only Software-as-a-Service (SaaS) product development platform that combines CAD, built-in PDM, real-time collaboration tools, and business analytics Link: https://www.onshape.com/en/ Imp. Instruction: Need to make a student account on the above link for designing purposes. 2. MakerBot Print: Printing Strategy Making Software Prepare, print, and monitor your project - from your browser straight to your MakerBot 3D Printer. MakerBot CloudPrint™ replaces MakerBot Print with an improved preparation experience and allows teams to collaborate and share access to MakerBot 3D pritners. Download Link: https://www.makerbot.com/3d-printers/apps/makerbot-print/download/ Imp. Instruction: Download it directly from the link mentioned above.

3. RD Works: Laser Cutting strategy making Software RDWorks is a powerful program that allows you to perform laser cutting engraving operations. The program has support for drawing points, lines (horizontal/vertical), polyline, ellipse/circle, rectangular/square, Bezier curve, text, and for CAD models such as DXF, AI and PLT. Download Link: https://rdworks.software.informer.com/8.0/ Imp. Instruction: Download it directly from the link mentioned above. Install it with a machine plugged in with your Laptop.

4. ASPIRE: CNC Wood Router cutting strategy making Software Aspire free trial has been designed to allow you to test all the elements of the software to ensure it is the right product for you. The trial software is not time limited, nor does it require you to sign up with your personal details. All of the features are enabled and there are a selection of free projects available for you to download and cut on your CNC machine to check the compatibility. Download Link: https://www.vectric.com/free-trial/aspire Imp. Instruction: Directly download the student version after signup and install it on your laptop from the link mentioned above.

5. Autodesk Eagle: PCB Design Software Included with a Fusion 360 for personal use subscription, EAGLE free download is a limited version for hobbyists including 2 schematic sheets, 2 signal layers, and an 80cm2 (12.4in2) board area. Download Link: https://www.autodesk.com/products/eagle/free-download Imp. Instruction: Login to the link mentioned above to download the software for the student version.

6. MPLAB® X IDE: Embedded System Design Software for PIC Microcontroller MPLAB® X Integrated Development Environment (IDE) is an expandable, highly configurable software program that incorporates powerful tools to help you discover, configure, develop, debug and qualify embedded

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designs for most of our microcontrollers and digital signal controllers. Imp. Instruction: https://www.microchip.com/en-us/tools-resources/develop/mplab-x-ide Login: Download directly from the above mentioned Link and install it directly on your Laptop. While installing it, click all the checkboxes present for all the tools.

7. MPLAB® XC Compilers: Embedded System Programming Compiler for PIC Microcontroller Now Microchip offers a TÜV SÜD certified functional safety compiler package that supports all our PIC, dsPIC, AVR and SAM devices to make your tool qualification effort easier. The package includes all the documentation and reports for a fully qualified development environment for functional safety standards ISO26262, IEC 61508, IEC 62304 and IEC60730. Functional safety licenses also include all of the optimizations found in our PRO compiler licenses and are available in the downloads tab below. Note that these compilers only unlock when a functional safety license is purchased Link: https://www.microchip.com/en-us/tools-resources/develop/mplab-xc-compilers#tabs Imp. Instruction: Download it from above mentioned link after clicking on compiler download tab. While installing the software , you need to click the checkbox for "Add to Path".

*** In case of Any doubt , youtube videos can be used for the reference.***

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AICTE-ATAL Idea Lab Basic Faculty Development Program

(Hands-on Training) Certificate

-Report prepared by Dr.M.Karthikeyan, HOD-R&A

Dr K C Vishwanath, Associate Professor