



Boot Camp Session

on

AI for Future Workforce, Intel Digital readiness Program

March 16th-17th, 2023

Organized by

School of Computer Science and Engineering

Manipal University Jaipur

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INTRODUCTION

Manipal University Jaipur, Department of Artificial Intelligence and Machine Learning (AIML) & Computer Science and Engineering (CSE) in collaboration with **Intel** organized a Bootcamp session **“AI for Future Workforce”**. This comprehensive training program comprises of hands-on experience with AI tools and a series of modules focusing on different aspects of digital readiness. The main aim of the boot camp was to help the students get acquainted with artificial intelligence, it’s uses, ethics, and other concepts that go hand in hand with the same. This will enable students to use it in their respective fields and the career paths they follow and bring the opportunity to develop the AI skills to succeed in the 21st-century workforce. Two sessions had been organized on 16th & 17th Mar 2023.

MANIPAL UNIVERSITY JAIPUR
(University under Section 2(f) of the UGC Act)

intel

Boot Camp Session on
AI for Future Workforce

Intel® Digital Readiness Programs
Empowering Lives with Technology

16th & 17th March 2023

09:30 AM - 04:30 PM

Parallel sessions in Sharda Pai & TMA Pai Auditorium

Attendee Certificate

Organized By: Department of AIML & CSE, School of Computer Science & Engineering

Beneficiaries

1. Students of 4th and 6th semester of CSE and CSE AI/ML Branches.



2. Faculty members of School of Computer Science and Engineering.

Students and Faculty attending the bootcamp.

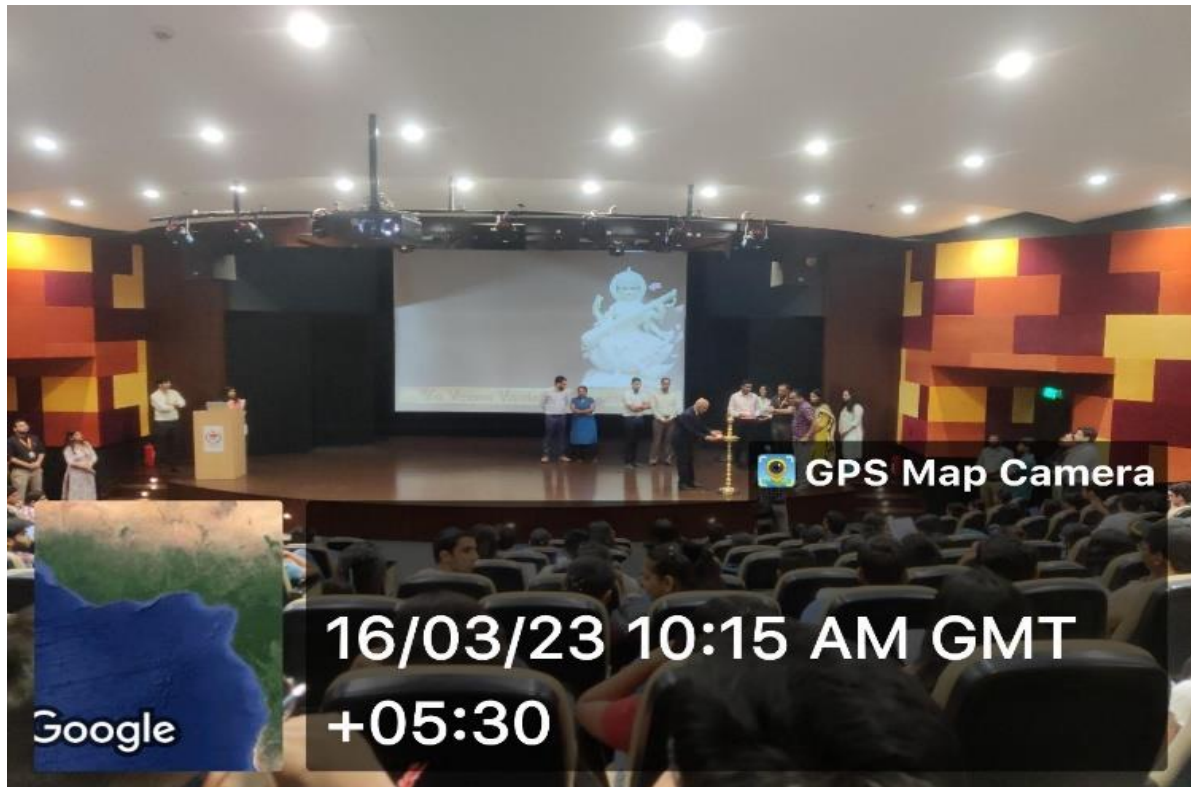
Intel TEAM EXPERTS

- Poornima Agarwal (Program Coordinator)
- Liny Chandran
- Sarthak Sathu
- Karthik
- Uday Raj

INAUGURAL CEREMONY

The Inaugural ceremony was hosted by Dr. Deepika Shekhawat, Department of Computer Science and Engineering AI & ML.

Lightening of the lamp



Lightening of lamp by Faculty and Intel Team

Address by Prof (Dr.) Sandeep Chaurasia (Director, SCSE)

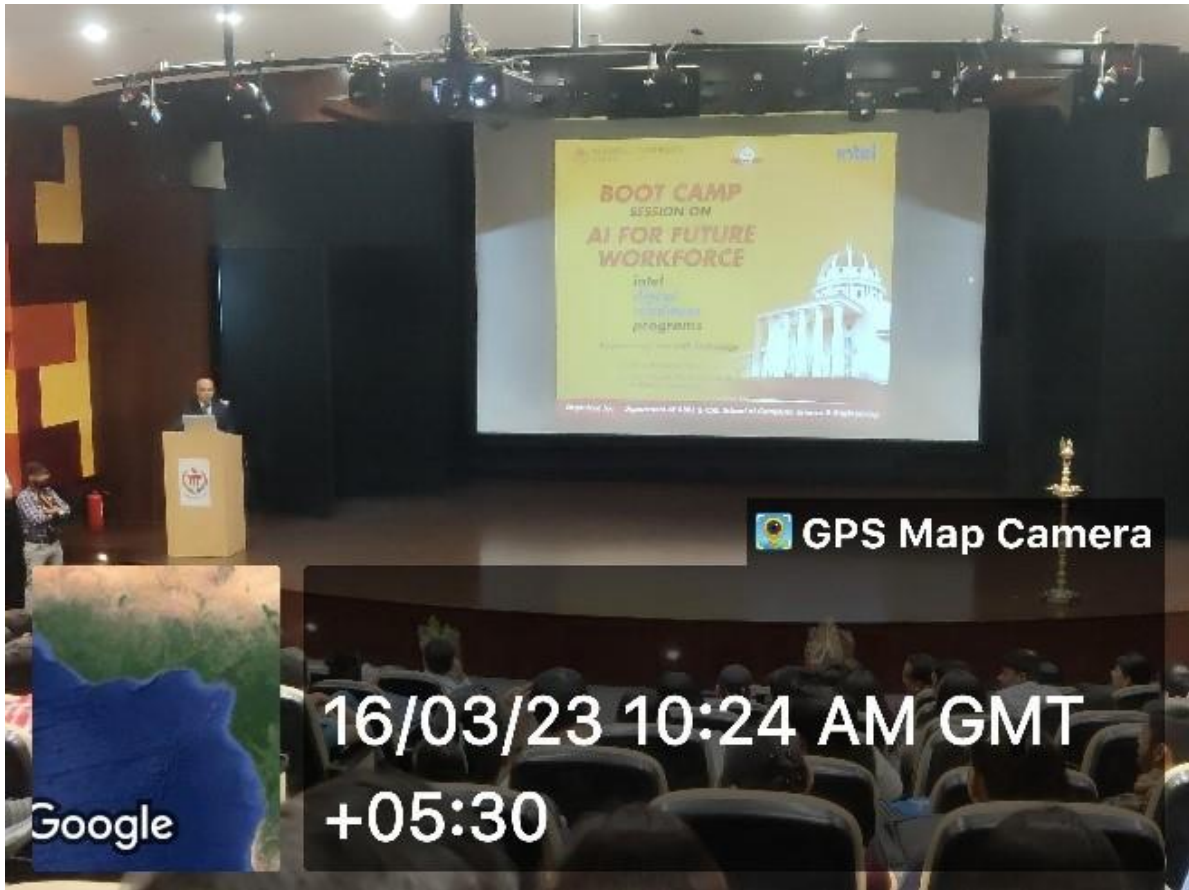
Dr. Sandeep Chaurasia extended a warm welcome to the students, faculty, and the intel team, and emphasized the significance of the Bootcamp. He then briefly discussed the ongoing AI revolution.



Dr. Sandeep Chaurasia addressing the audience

Address by Dr. Arun Shanbhag (Dean Faculty of Engineering, MUJ)

Dr. Arun Shanbhag greeted the Intel team and spoke about the significance of the bootcamp. He encouraged students to make the most of this opportunity and presented it as a great equalizer on a global scale. Additionally, he discussed the practical applications of transformational technologies.



Dr. Arun Shanbagh addressing the audience.

Address by Poornima Aggarwal (Program Coordinator, Intel team)
Mrs. Poornima Aggarwal welcomed the students and provided an overview of the two-day bootcamp aimed at enhancing technical coding and AI skills required for the future. She highlighted that the Intel team has launched this



initiative to target 30 million students worldwide, including those from the USA, Southeast Asia, and European countries. The first session of this bootcamp was held at MUJ. Mrs. Aggarwal then explained the bootcamp's structure and emphasized that trainers would be available to assist students throughout the process. She encouraged students to participate in the code to no-code approach of machine modelling and presented this opportunity as a means of learning and unlearning, which is applicable for all as we prepare for the digital era ahead.

Vote of Thanks by Prof.(Dr.) Neha Chaudhary

Prof.(Dr.) Neha Chaudhary expressed her gratitude towards the experts from the Intel team and presented them with a bouquet of flowers as a token of appreciation. She also thanked the MUJ leadership for their support in organizing this bootcamp. Dr. Neha highlighted the significance of bridging the gap between industry and college through such bootcamps and encouraged students to make the most of this opportunity to learn and enhance their skills.

Session 1

Introduction to the Bootcamp

The Bootcamp on AI for Future Workforce was held simultaneously in two auditoriums - TMA Pai Auditorium and Sharda Pai Auditorium. The bootcamp was organized by Uday Raj/Karthik and Liny Chandran/Sarthak Sathu in the respective auditoriums.

The bootcamp aimed to provide a deep understanding of AI, its applications, and the ethical considerations associated with AI.

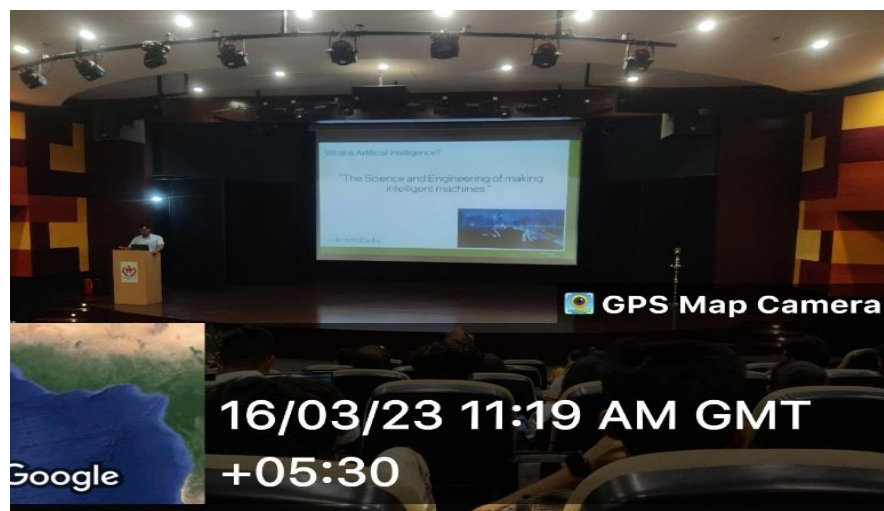
Quiz Session and History of AI



The bootcamp began with a quiz session on AI, Machine Learning (ML), and Deep Learning (DL) conducted by Liny from the Intel team. Next, Uday Raj talked about the history of AI and explained a simple use case of classification. He interacted with the audience and explained that AI came into existence because of the availability of data. He also discussed Alan Turing's question of whether machines can think and the Turing test. The smallest and largest units of measuring data were also discussed, and AI was defined as the science and engineering of making intelligent machines.

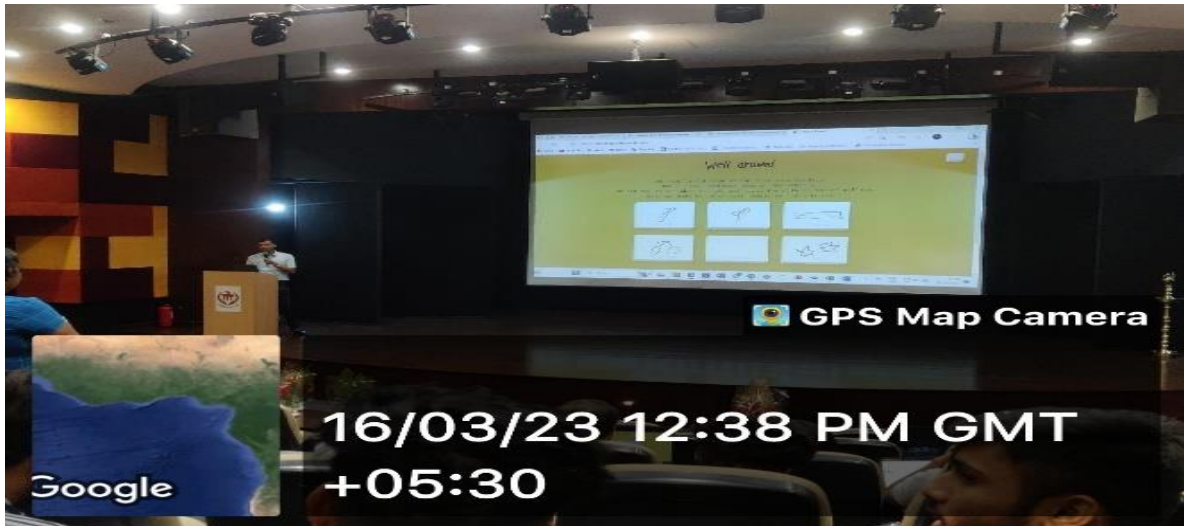
Classifier Building and Concerns of AI in the Workplace

Liny presented the concept of classifier building using the example of wearing a mask or not. She explained the false negatives and false positives, confusion matrix, accuracy formula, recall formula, and F1 score. Uday Raj and Liny also presented concerns about AI in the workplace, including myths and realities such as the idea that automation will completely displace employees, and the reality that 70% of employees see AI as supporting humans.

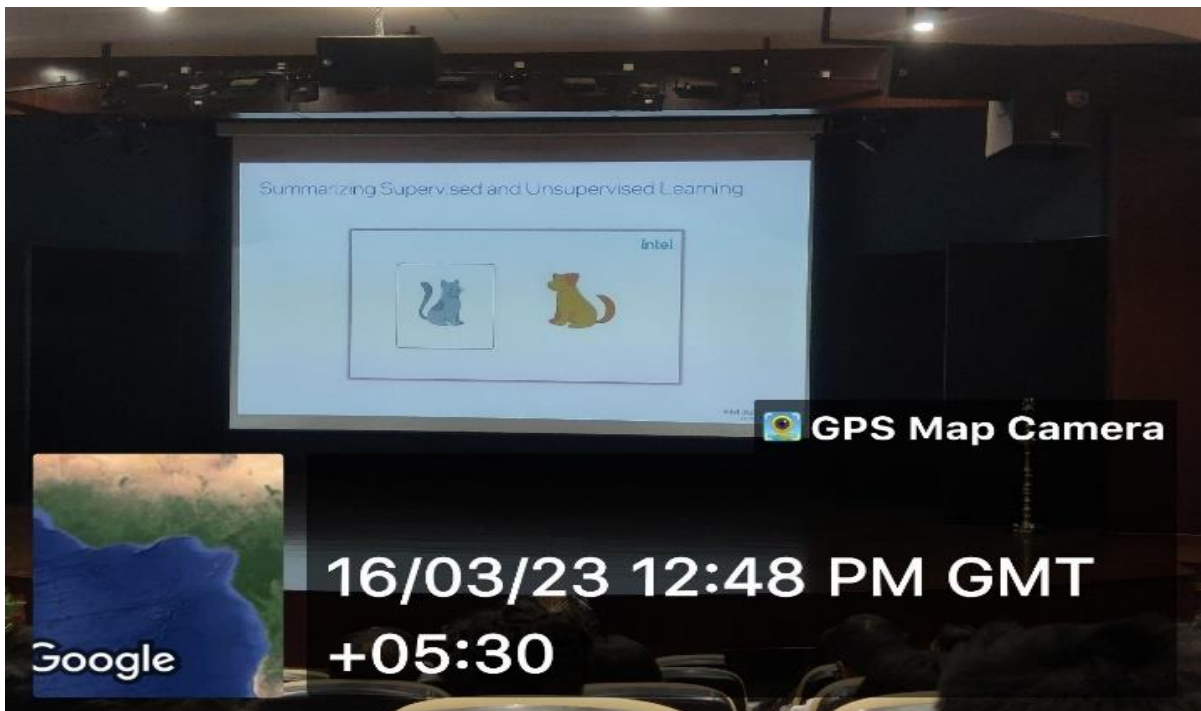


Three Domains of AI and AI Gussed Drawings

The experts explained the three domains of AI, including computer vision, NLP, and statistical data. A short session on AI gussed drawings using Quickdraw was also conducted, in which students took much interest.



After Quickdraw, Mrs. Liny talked about Initial applications in AI, specifically mentioning the LeNet 1 video which was the first convolutional network that could recognize handwritten digits with good speed and accuracy progress over the years. She then proceeded with showing videos on supervised and unsupervised learning, summarized the concepts, and discussed AI for good.



Lunch Break

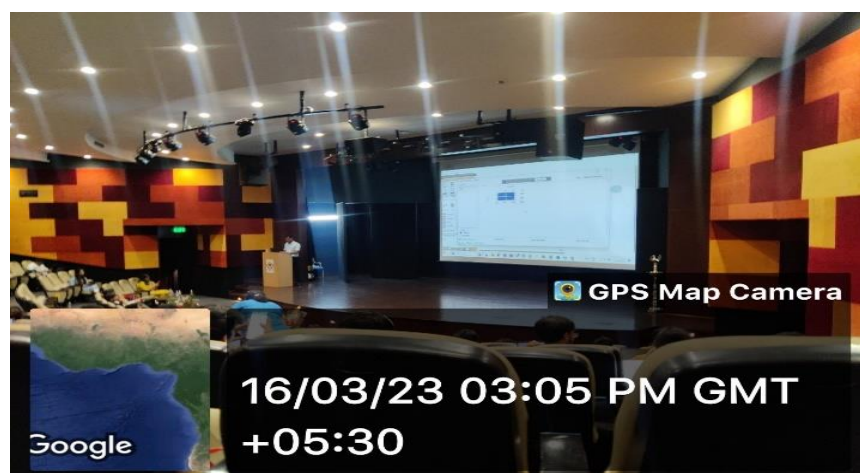
The Intel team experts, faculty, and students then proceeded for their lunch break.

Session 2:

Hands-on session



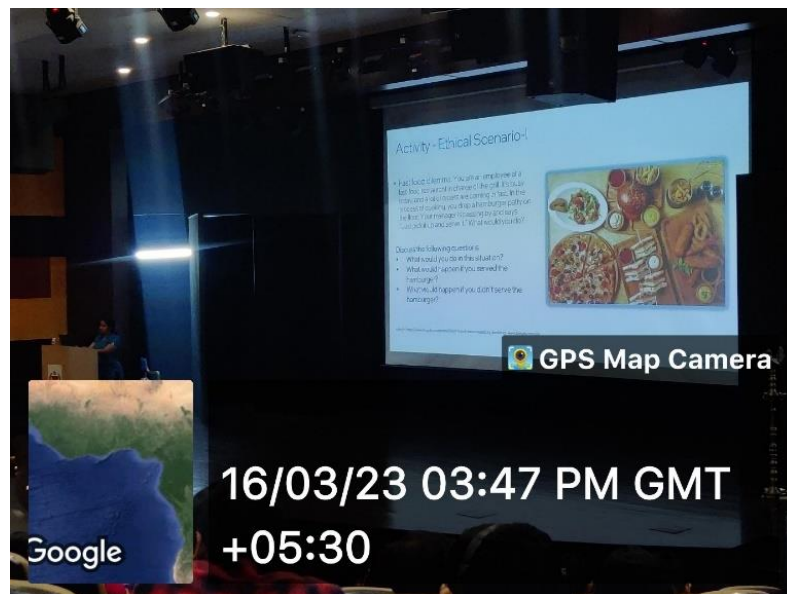
The bootcamp's hands-on session started with Mr. Uday reminding everyone about the AI project cycle and providing an overview of Orange Data Mining. Using a tree model, he demonstrated how to train 3-4 models on various data sets and assess the accuracy, confusion matrix, recall formula, false negatives, false positives, and Fi score. Following the same process, the students created



their own models and conducted experiments on their laptops.

AI Ethics

Mrs. Liny then discussed the topic of AI ethics and covered a range of areas such as dilemmas, racial/gender inequality and bias, fraud, and legal stuff, and how to use data ethically. She also showed how to build a social impact model



using Teachable Machine.

Key Takeaways

The key takeaways from the session were:

- 1) Understanding what AI is and what's not AI
- 2) A walkthrough of the AI project cycle
- 3) Hands-on session with Teachable Machine and Orange Data Mining
- 4) Ethics and AI.
- 5) How to use AI for good.

Closing Ceremony

To conclude the boot camp, Mrs. Uday and Mrs. Liny asked the participants to reflect on what they found interesting about the day's session and what they would like to find out more about. They also conducted a Q/A session and welcomed feedback from the participants. This was followed by a group photo



session where the beneficiaries and the Intel team participated.

