

FDP REPORT

AI FOR CBSE TEACHERS

7th to 11th June 2021 at the LNMIIT Jaipur
Coordinator: Dr. Sandeep Saini

ATAL Sponsored FDP on AI for CBSE Teachers

About the FDP:

Artificial Intelligence (AI) is the latest developing technology in today's digital world and one of the major thrust areas. The field is not only limited to higher education but also relevant to school level students.

This FDP aims to train school teachers in this field. The program is synchronized with the CBSE course content and focuses mainly on the subject-specific aspects. The program will cover the basics of AI and the latest trends in the field, which will help the participant teach the subject more comprehensively.

The FDP was organized from 7th to 11th June 2021. The LNMIIT Centre organized the FDP for Smart Technologies (LCST) and the Centre for Educational Technology and Teaching-Learning Innovation (CET-TLI) at the host institution, i.e. the LNMIIT Jaipur.

Organizing team:

Patron

Prof. Rahul Banerjee, Director, The LNMIIT Jaipur

Chair

Prof. R Tomar, HoD, ECE, The LNMIIT Jaipur

Program Coordinator

Dr. Sandeep Saini, Assistant Professor, ECE, The LNMIIT Jaipur

Resource Persons

Dr. Kusum Lata, LNMIIT Jaipur

Dr. Sandeep Saini, LNMIIT Jaipur

Prof. Ravi Gorthi, LNMIIT Jaipur

Dr. Abhishek Sharma, The LNMIIT Jaipur

Dr. Arshita Nair, LNMIIT Jaipur

Participation details:

Total Approved participants: 199

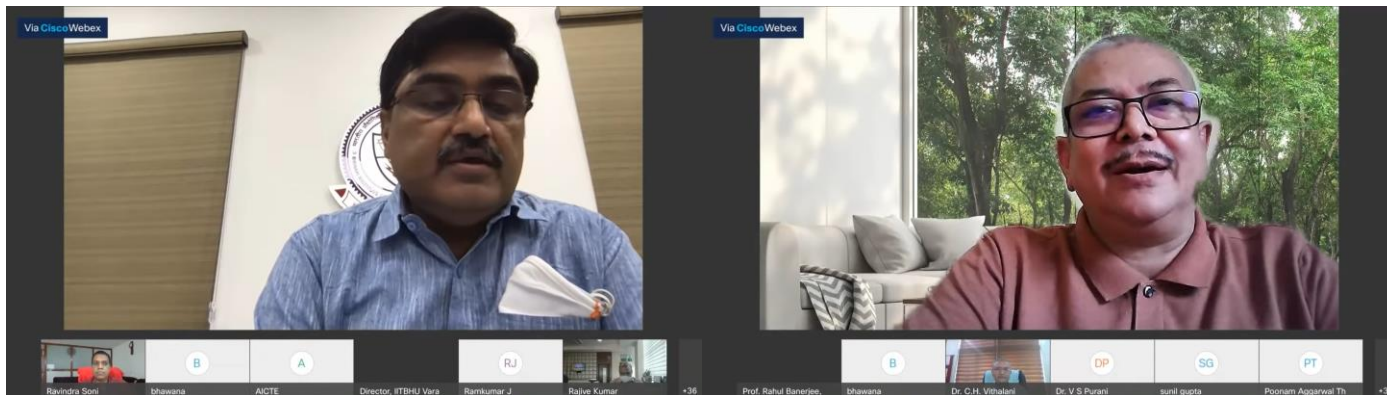
Total participants who attended more than 80% sessions and scored more than 60% marks in the final evaluations = 135

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Inauguration:

The FDP was inaugurated on 7th June 2021 as a part of a combined inauguration held for 43 FDPs starting on the same date. Prof. Pramod Jain, director of IIT-BHU, was the chief guest on occasion. The following dignitaries also addressed the inauguration:

- Dr. Bhawana Rudra, NIT Karnataka
- Dr. Ravindra Kumar Soni, Director, AICTE
- Dr. Poonam Agarwal Thakur, Principal, NIIFT Ludhiana
- Dr.C.H Vithlani, Principal, Govt. Engg. College Rajkot
- Dr. V.S Purani, Principal, Govt. Engg. College Valsad
- Sh. Sunil Gupta, Principal Director, Ministry of MSME , Technology Development Center, Meerut
- Prof Rahul Banerjee, Director LNMIIT Jaipur
- Prof. Ananthanarayana V S, Deputy Director, NITK Surathkal
- Prof Siby John, Director PEC Chandigarh
- Shri Abhishek Singh IAS, President & CEO National E-governance System
- Sh Neeraj Kumar, Director, Project Appraisal & Finance and Projects (UMANG and RAS)
- Prof. Rajive Kumar, Member Secretary AICTE
- Prof M P Poonia, Vice Chairman AICTE
- M. Sundaresan, Deputy Director, AICTE



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Sessions Details:

The FDP organizers focused on the complete syllabus for the CBSE subject code 417, i.e. Artificial Intelligence, during the FDP. The syllabus was covered in the exact sequence. The emphasis was given to both theoretical as well as practical aspects of the course. 7 sessions were dedicated to the theoretical content of the syllabus and 4 sessions were hands-on session on Python programming.

The expert talks were conducted in sync with the topics being covered and aimed to expose the participants to the latest trends in the field.

Session details:

| Date | 9:00-10:30 | 10:30- 11:00 | 11:00-12:30 | 12:30-2:00 | 2:00-3:30 |
|------------|--|--------------|---|-------------|--|
| 07-06-2021 | Session 1: Inauguration and Introduction to AI Lo1 | Tea Break | Session 2: Introduction to AI Lo3 | Lunch Break | Session 3: Understanding and installing Python Lo5 |
| 08-06-2021 | Session 4: Employability Skills Lo2 | Tea Break | Session 5: AI project cycle – and NN Lo4 | Lunch Break | Session 6: Introduction to Jupyter Notebook and basics of Python Lo5 and Lo6 |
| 09-06-2021 | Session 7: Employability Skills and NN Lo2 and Lo4 | Tea Break | Session 8: Data science in AI Lo7 | Lunch Break | Session 9: Data types and operators in Python Lo6 |
| 10-06-2021 | Session 10: Computer Vision in AI Lo8 | Tea Break | Session 11: Neural Network, ANN, CNN and applications Lo9 | Lunch Break | Session 12: Evolution in AI – Expert talk by Prof. R. Gorthi |
| 11-06-2021 | Session 13: Evaluation and Robotics Applications Lo10 and microbit | Tea Break | Session 14: Expert Talk on Mental Health by Dr. Arshita Nair | Lunch Break | Doubt clearing session, Assessment, feedback and closing. |

Snapshots of the sessions:



The screenshot shows a Zoom meeting in progress. The main content is a presentation slide titled "Applications of NLP" from LNMIIT (The Best Institute of Information Technology) and ATAL. The slide lists several applications of Natural Language Processing (NLP):

- Machine Translation:** Natural language processing breaks language barriers with automatic translation but still struggles to preserve meaning, handle idioms.
- Blocking Spam:** Filters use natural language processing to keep out junk emails by extracting meaning and comparing frequency of certain words to non-spam emails. Also seek to make sure wanted emails are not filtered.
- Detecting Emotion:** Natural language processing analyzes sentiment to gauge emotional states, take the pulse of consumer moods and form review snapshots.
- Information Extraction:** Natural language processing helps power rapid algorithmic trading in financial markets by extracting key information from deal news and making it usable by trading programs.
- Question Answering:** Search engines historically have struggled to provide relevant answers to questions posed in natural language. Most people prefer to seek information this way, so natural language processing is being applied to the challenge.
- Chatbots:** Computer programs that can simulate human conversation are used to help people perform simple tasks or ask routine questions.

The meeting interface shows a "REC" indicator, the presenter "Dr. Kusum Lata is presenting", and a list of participants including "You", "Dr. Kusum Lata", "Vivek Thakur", and "76 others".

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REC Dr. Kusum Lata is presenting



Lab activity

- To introduce the students to AI systems, ask them to play the next game using a web browser. The game is called AI Pictionary.
- <https://www.autodraw.com/>
- What does it do?** Turns your amateur scribbles into polished line drawings.
- How does it work?** It looks at your rather haphazard drawings on screen and then tries to recognize what you are trying to sketch out, replacing your efforts with something much more professional.

You

In-call messages

Let everyone send messages

Models of NLP

Vivek thallam 9:29 AM
more info about chatbots?

You 9:29 AM
yes we will discuss chatbots
when we have the session on NLP

Sashi Bhusan Maharana 9:30 AM
AI is not just a conditional programming.


jitendra singh rana 9:31 AM
Mam, any machine which takes instructions and
generate output that will be general AI?

You 9:31 AM
no. Jitendra
That is a regular computer

Send a message to everyone

meet.google.com/vrn-qnw-wud?authuser=5

REC



9:04 AM | AI for CBSE Teachers ATAL FDP

ENG 09:04 AM 11-06-2021

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Participants:

A total of 199 participants were approved for the FDP. The participant must attend more than 80% sessions and score more than 60% marks in the final evaluation test to get the certificate. The list of participants is mentioned below.

| Name | Affiliation |
|--------------------------|--|
| Karuna Gupta | GD GOENKA PUBLIC SCHOOL MODEL TOWN |
| devari sailaja | bhavan's atmakuri rama rao school |
| Akhila Khoday | KLE's BCA, PC Jabin Science College, Hubballi |
| Nitin Kumar Sahu | GL Bajaj Group of Institutions |
| Ramandeep Kaur Malhi | GEMS Pataila |
| N.DESAI | SRKREC |
| Ramandeep Kaur | Baba Farid College |
| Satinder kaur chahal | Baba Farid College, Bathinda, Punjab |
| Vivek Kumar Pandey | United college of engineering and research, prayagraj |
| Bindiya Jain | Apex University |
| Gayathri G | Dr.Mahalingam college of Engineering and Technology |
| Debi Prasad Sinha | SARASWATI DEVI INTERNATIONAL SCHOOL |
| Ms.Vandana Aggarwal | Chandigarh University Gharuan |
| saroj rani | chandigarh university |
| VARUN PUNDIR | vidya college of engineering |
| sneha vilas kalbande | Prof Ram Meghe Institute of Technology & Research badnera |
| Chitra Jalota | Manav Rachna International Institute of Research and Studies |
| MD TABREZ NAFIS | Jamia Hamdard |
| GAURAV SINGH | Bishop Conrad Senior Secondary School |
| Sanjay Tejbahadur Singh | P K Technical Campus |
| Prema Sahane | Nutan Maharashtra Institute of Engineering & Technology |
| Ved Prakash Thawait | Dev Sanskriti Vishwavidyalaya Haridwar |
| Ajay Kumar | Jammu University |
| Annedra Chandrakala | GEETHANJALI COLLEGE OF ENGINEERING AND TECHNOLOGY |
| Arun Mony | Pooja International School |
| K lavanya | delhi public school |
| Anand Kumar Mandali | Sri vani school of Engineering |
| T MADHURI | Pallavi Model School |
| Thammishati Annapurna | PALLAVI MODEL SCHOOL CBSE |
| Ujwala Bharathi Davuluri | St. John's EM High School |
| Niteesh Gangavarapu | St. John's EM High School |
| Asita Kumar Rath | Raajadhani engineering college |
| K Ratnakumar | DPS Amalapuram |
| Kanak Giri | Swami Keshwanand Institute of Technology |
| Disha kothari | Lnmiit |
| SHYLA | VASAVI HIGH SCHOOL |
| M Balachandra | Era International School |
| Dr. Anju Kalwar | jecrc university |
| SANDHYA V. L. P | St. Johns em school |
| Nidhi Khare | Delhi Public School Etawah |
| K Pratap Raj | Podar Education Network |
| Harshitha R | BNM Institute of Technology |
| Shreedevi S Ronihal | B.N.M Institute of Technology |
| Shwetha N | BNM Institute Technology |
| SARIHADDU BHAGYA LAKSHMI | MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS) |
| Vadduri maneesh | St. Mary's group of institutions guntur |
| Yogesh K | BNM Institute Technology |

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| | |
|---------------------------|--|
| vivek thallam | A S S SCHOOL |
| Bhavana Nali | Sri Venkateswara University College of Engineering |
| Sruthi M S | SRI KRISHNA COLLEGE OF TECHNOLOGY |
| GUNJAN JAIN | Bright Scholar Sr. Sec. School |
| C.Sarita Rao | ST JOHNS ENGLISH MEDIUM SCHOOL |
| Kanahaiya Lal Ambashtha | Gopal Narayan Singh University, Sasaram |
| N.Uma maheshwari | MRCEW |
| V.Viji | no |
| B Satyanarayana Murthy | BVC Engineering College |
| A Shiva Kumar | HOLY MARY INSTITUTE OF TECHNOLOGY & SCIENCE |
| Jyoti Shokeen | University Institute of Engineering and Technology, Rohtak |
| Sowmya N | BNMIT |
| Dhanalakshmi M | Bnmit |
| G RAVINDRA BABU | SAI SPURTHI INSTITUTE OF TECHNOLOGY |
| Pushpa gothwal | Amity University Rajasthan |
| Immidisetty Satya | Vishaka institute of science and technology |
| VANDANA | SCRIET |
| Uma Narayanan | New Saraswati House |
| Anmol Mehta | Manipal university jaipur |
| Ritika Keswani | Gwalior Glory High School |
| Aparna Amol Joshi | Pawar Public School,Nanded City,Pune |
| Sneha G Chachadi | RNSIT |
| Kalaiselvi Pandari | Don Bosco School Of Excellence |
| K. Vallidevi | Sri Sivasubramaniya Nadar College of Engineering |
| SHUBHAM MAHAJAN | SHRI MATA VAISHNO DEVI UNIVERSITY |
| Arun | JVWU, Jaipur |
| VIJAY LILADHAR AGRAWAL | HVPM's COET , Amravati |
| Rupali Patankar | Delhi Public School Neelbad Bhopal |
| Mandeep | DIS |
| YASHASWINI SUJAY | ST JOSEPH'S SCHOOL CBSE, Bengaluru |
| SADIYA SIDDIQ | REGIONAL INSTITUTE OF EDUCATION |
| Wasiya | Delhi Public School |
| mohit panwar | MGSU Department campus |
| sadhu singh | St. Kabeer Academy |
| Reena Rani | Government polytechnic khatima |
| Sachin shyamsundar Laddha | Premlila Vithaldas Polytechnic |
| Navpreet Singh | Sri Guru Angad Dev College |
| Kirti gupta | Jamia Millia Islamia |
| RITU RAJAL | FET, Gurukula kangari University, Haridwar |
| PALASH MAJUMDER | UTTAR RAJAPUR NAZRUL SMRITI VIDYAPITH(HS) |
| Manpreet Kaur | Cambridge Court World School |
| Preethi J L | James College of Education |
| Pinakshi Panda | VENKATESWAR ENGLISH MEDIUM SCHOOL,BHUBANESWAR |
| Rajani Trivedi | SAI INTERNATIONAL SCHOOL |
| SADHNA BIJROTHIYA | Maulana Azad National Institute of Technology, Bhopal |
| TRIVENI A R | Government Polytechnic for Women Ramanagar |
| SHIVASHANKAR V JIRLI | KLE SOCIETY'S Smt. CI.MUNAVALLI POLYTECHNIC, HUBLI. |
| Nishtha Sharma | Cambridge international school Palampur |
| sujatha devi ch | Mahatma Gandhi Institute of Technology |
| Ashwini Kabbur | KLE's smt.C.I.M.Polytechnic, Hubli |
| Hephzibah Paul | KLEs smt CIM polytechnic |
| Girish Bidaralli | KLE SOCIETY'S Smt. C. I. M. Polytechnic |
| Junaid K P | PGIMER |
| AJAI SINGH YADAV | New Light Education Centre |

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| | |
|---------------------------------|--|
| Yukti | Army Public School |
| S S BIRADAR Lecturer | kle smt C I M polytechnic Vidyanagar Hubli |
| Nirmala C Goudar | KLE Society's Smt C.I Munavalli polytechnic Vidyanagar Hubli |
| Basavarajeshwari B Shivanagutti | Kle's smt C.I.Munavalli polytechnic Hubli |
| Vipan Kumar | MakeMyTrip |
| Sashi Bhusan Maharana | Jawahar Navodaya Vidyalaya |
| VIDHYA H | DAV BOYS SENIOR SECONDARY SCHOOL |
| Esrafil Ali | Sambalpur University |
| Thumma Mary Sindhura | Don Bosco School |
| BHAVNA SHARMA | NC.Jindal Public School,Punjabi Bagh West |
| SAJAN SINGH | Birla Institute of Technology (BIT), Mesra |
| MANEESH KUMAR YADAV | GOVT Polytechnic Mirzapur |
| Jai Kishan Dubey | SRM Institute of Science and Technology |
| Arun P | Sri Nachammal Vidyavani School |
| BHARSTHAN.A.S | ST.JOSEPH INTERNATIONAL SCHOOL |
| Aarti Purohit | Banasthali vidhyapith |
| Mandeep kaur | CGC |
| Sapna Kumar | The Cambridge Earth School, Tanda, Punjab |
| Ritika sharma | Airport school Ahmedabad |
| KHARAG SINGH MEHRA | Shri Guru Nanak HS Public School |
| Vijai Kumar Singh | The Tribhuvan School, Patna |
| SUNIT KUMAR | CORE ACADEMIC UNIT - DIRECTORATE OF EDUCATION DELHI |
| Kaninde Shashikanth | Police Information Technology and Communications |
| RAMNARESH Yadav | CCA institute Lalitpur |
| BHANU pratap dwivedi | S v p higher secondary school |
| Sukanya Vani | Delhi Public school |
| TARLOCHAN SINGH | SHREE ATAM VALLABH JAIN VIDYAMANDIR |
| Preeti Gupta | Martin and Harris Research Labs |
| Malvi Sunita Manojkumar | Sunrise global school |
| Umakant Tandle | ZILLHA PARISAHD HIGH SCHOOL TUGAON |
| Abhishek | Saint Marys Convent School Kanth Moradabad |
| Vagisha Singh | Sagar Public School, Gandhinagar. |
| SHREEKANT SHAW | GAYA |
| ASHISH KUMAR PANDA | College of engineering and technology, Bhubaneswar |
| Dattatraya Rohidas Kakade | Pune |
| Deepthi Das | Delhi Public School |
| Manisha Bharti | University of Jammu |
| SUMIT KUSHWAHA | KNIT Sultanpur |
| Eswara Rao Gade | NDRF |
| Sumit Kumar | Pinewood School Near Medigram Hospital Delhi road Saharanpur |
| Payal Saraf | MKVV INTERNATIONAL VIDYALAYA |
| Indu Bala | Mahatma Gandhi Central University l |
| RUDRAPPA B GUDINAVAR | KLE's SMT. C I Munavalli Polytechnic, Vidya Nagar, Hubballi |
| Paresh R. Vyas | The Aditya Birla Public School, Kovaya |
| Mahima | Excelsum High School |
| Neelam Ahuja | New Horizon Public school Airoli Navi Mumbai |
| Shital Sanjay Yadav | sveri's college of engineering Polytechnic Pandharpur |
| NEERU | LPU |
| Pasikanti Rajani | Surya The Global School |
| shalini | Uttarakhand board of technical education |
| Bakshish Singh | GS convent school khatima road sitarganj uttarakhand |
| Mohammad Altaf Dar | Government Degree college for women Anantnag |
| Rashmi more | Vidya Vikas Education Society |
| ELANGO V | IRT POLYTECHNIC COLLEGE |

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| | |
|-------------------------------|---|
| Bhuneshwar Behra | Hemchand Yadav University Durg |
| PAWAN KUMAR | Directorate of Education NCT DELHI |
| puneet kumar | Prayag Academy |
| Dipu Gogoi | Sibsagar polytechnic |
| Manisha Bharti | S Chand Publishing |
| Chetan Girdhar Patil | Macro Vision Academy |
| Buhyavarapu Manasa | TSWRDCW WARANGAL WEST |
| Praveen Gupta | POORNIMA INSTITUTE OF ENGINEERING AND TECHNOLOGY |
| Aman Akash | Cambridge institute of technology Bangalore Karnataka |
| VETHAPACKIAM K | GOVERNMENT POLYTECHNIC COLLEGE KADATHUR |
| Harvinder singh | SAINT SOLDIER ELITE CONVENT SCHOOL , JANDIALA GURU |
| Akshita Yadav | Little millennium school |
| Annu Priya | Birla Institute of Technology, Mesra |
| Neha Afroz | Vidya vikas institute of engineering and technology Mysore |
| Shrinkhala lobo | Delhi public school bhopal |
| Monica Choudhary | University of Jammu |
| Priyanka Dinkarrao Joshi | Sidhhant College Of Engineering ,Pune |
| ANUPRIYA PRIYADARSHANI | INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, RANCHI |
| SUMEET DAVID | ST ALOYSIUS SR SEC SCHOOL CANTT JABALPUR |
| Anusha Aousula | Kg reddy college of engineering and technology |
| SAMPURNA GUHA | AIRS |
| Krati Rastogi | Shiv nadar university |
| Haripriya R | SNS College of Technology |
| Kumud Rani | Guru Nank Public Girls Higher Secondary School Dhampur Bijnor |
| Arvind | DCRUST |
| SIVAPRIYAN R | Sir MVIT, Bangalore |
| MOUNIKA V | KLEF |
| Neha Tiwari | IIS(Deemed to be University) |
| Noor Mohd | Graphic Era Deemed to Be University, Dehradun |
| RAMESH KANNAN R | vit |
| G DEVENDER | Nizam College |
| SABIR ALI HAIDER | Siwan Engineering and Technical Institute, Siwan |
| Vijayan Sharma | Central University of Haryana |
| Vaddamani Pradeep Kumar Reddy | Bangalore |
| RAJESH KUMAR DEWANGAN | G. G. V. Institute of Technology bilaspur |
| Sachin Kumar Saxena | SRMS |
| ASHOK KUMAR KAJLA | Poornima Group of Institutions |
| Jaychand Loknath Upadhyay | Xavier Institute of Engineering |
| A.Sethu Madhavi | stanley college of eng & tech for women |
| Ganta Raju | Bonam venkata chalamayya engineering college |
| Santosh Sharma | Non |
| Opinder Kaur | Netaji Model School ,Ropar |
| Katta Srilatha | Surya the global school |

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Feedback Received:

The participants submitted the feedback on the ATAL portal for the FDP. The organizers also collected a separate feedback where details comments were asked. Some of those feedbacks are:

| Name | What did you like about the FDP? | What improvements do you look for? |
|---------------------|--|---|
| Shrinkhala lobo | The Faculty Development Programme (FDP) intends to provide and facilitate up-gradation of knowledge, skill and intends to provide opportunities for induction training to teachers employed. | About blended and flipped learning and effective classroom management. |
| Paresh R. Vyas | It was nicely organized by LNMIIT team and meticulously planned. The faculty members Dr.Sandeep Saini & Dr.Kusum Lata explained all the topics very well and also step by step which was very informative. I also enjoyed the session of Dr.Abhishek Sharma on AI-Hardware which was explained in depth. | more hands on practical experience required to understand the concepts clearly. |
| Deepthi Das | Its is an amazing platform to learn new concepts from experts of the field. Thank you for this opportunity. | It was perfectly organized. Without any lapse. |
| Katta Srilatha | Everyone in ATAL Team are so good even for small doubt they have explained it very clearly till we understand. | Everything was good |
| Kaninde Shashikanth | Thank you so much for very valuable, superb, extremely informative and incredibly useful training. You have done a wonderful job and I really appreciate your efforts. Thanks to Gorthi sir, Sandeep sir, Kusum ma'am and Abhishek sir. | No |
| Vivekanand Thallam | The current Covid-19 situation is forcing people to put things in perspective and wonder about the future of everything. These virtual classes were totally justified and understandable to upgrade our knowledge about latest trends in the field of digital world. | Reduce the daily schedule.... 3hrs classes/day... that also limited to one session. |
| Uma Narayanan | Informative, Encouraging, Plethora of New Ideas, Excellent teachers (experts), Very Useful | As is, the entire training was very effective and well conducted. |

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| | | |
|--------------------|---|---|
| Kumud Rani | Purpose possibilities and ethics in AI, AI project cycle, python, Data science and computer vision, AI approaches ML and DL | As there is always a scope for the improvement but it seems flawless. |
| Buhyavarapu Manasa | Well Organised | Do more no. of fdps... Not only in AI but also in Networks |
| Sadhu Singh | Step by step approach, nice explanation and properly covered all the topics of AI of class ix and x. | I think FDP can be organized in more detailed and class wise ix and x separately specially targeting school teacher specially beginner, intermediate level of expertise. |
| Dr. K. Vallidevi | Very well organized and very much amicable organizers which paved the way for interactions | Codes if they are being shared before the session itself, then it will be helpful to try along with the speaker. Simultaneously practicing and listening is not possible sometimes and that leads to lagging. |

Resource Availability:

All the course content is shared along with the recordings of all 14 sessions on the google drive. The content is accessible using the link:

<https://drive.google.com/drive/folders/17foGihcvuwTIXtOXDy4rG3yTucouVYr1?usp=sharing>

Final Remarks:

It is a great Initiative by ATAL Academy to launch FDPs at such a large scale. The LNMIIT team is thankful to AICTE for giving us this opportunity to conduct online FDP for faculty members of technical institute of India free of cost. We had a great experience in this program and look forward to further enhance these in the incoming years.

Dr. Sandeep Saini

Assistant Professor, ECE, The LNMIIT Jaipur