National workshop on Artificial Intelligence with Deep Learning (AIDL-2K19) 25-26th March, 2019

1. **Title of the Activity:** Workshop on Artificial Intelligence with Deep Learning (AIDL-2K19)

2. **About the Activity:**

   a. **Objective:**

The goal of the two day National Workshop on Artificial Intelligence with Deep Learning (AIDL-2K19) was to train the participants on the recent trends in the field of artificial intelligence and deep learning. The workshop aimed to highlight the fundamental aspects of these topics and enable the targeted audience to apply it further for solving complex real life engineering problems.

   b. **Program Details:**

The Department of Electronics and Communication Engineering organized a two day workshop on AIDL-2K19 which was funded by DST, Rajasthan and SKIT, Jaipur. With the objective of conducting a fundamental level of workshop on artificial intelligence and deep learning for the participants who had basic understanding and keen interest in this emerging field. The workshop was attended by participant's divers in age and education background. A total of 142 registrations were received. The partakers were from Gujarat, New-Delhi and the rest which included faculties, M.Tech, B.Tech students from various departments like Computer Science, Mechanical Engineering and Electrical Engineering etc.

   c. **Expected Outcome:**

   ➢ Design and develop innovative projects in the field of Artificial intelligence along with deep learning.
   ➢ Learn machine learning algorithms like K-means, Data regression models and support vector machine.
   ➢ Analyze the abilities & limits of the latest techniques in artificial intelligence (like Evolutionary Algorithm and Swarm Optimization techniques).

   d. **Type**: National

3. **Details of Activity:**

   a. **External Resource persons**

The first keynote session was delivered by **Dr. Satyasai Jagannath Nanda, (Assistant Professor, Deptt. of Electronics & Comm. Engineering, MNIT, Jaipur).** He is one the key researcher in this field. The lecture provided the basics of the neural network and its architecture.

Followed by, a special interaction session organized for the students with, **Dr.Parmod Gaur, who is at present Researcher in Neuro-Imaging Technology, Ulster University, Londonderry.**

After this session, hands on practice were designed on MATLAB platform, this lab was headed by Dr. Satyasai Jagannath Nanda, where a neural network functioning as AND gate was designed. The inquest nature of the student to grasp the new horizons of knowledge soon ended the first day of the event.

The commencement of the second day, began with lecture of **Dr. Amit M. Joshi, (Assistant Professor, Deptt. of Electronics & Comm. Engineering, MNIT Jaipur).** He enlightened the audience with problems of big data and discussed various methodologies in the process of data mining. Mr. Joshi continued with us for the lab session where K-means algorithm the first clustering algorithm in data mining was designed.

Followed by this was the session on fuzzy logic and deep learning by **Prof Nithin V. George (Associate Professor, Deptt. of Electrical Engineering, IIT Gandhinagar).** He simplified the concept of fuzzy systems, deep learning and designing of convolutional neural network.

b. No. of Participants: 143

Participants Summary

Outside Registration:

Name	Institute	Position	Department
Md Naushad Javed	Jamia Hamdard , New Delhi	Student	ECE
Saurabh Kashyap	Vivekananda Global University, Jaipur	Student	Robotics
Abdulaziz Khaled	Vivekananda Global University,Jaipur	Student	Robotics
Vishal Sharma	Vivekananda Global University, Jaipur	Faculty	ME
Rabindra Kumar Mahato	Vivekananda Global University, Jaipur	Student	Robotics
Dr Viral Kapadia	MSU , Baroda, Gujarat	Faculty	CS
Ms. Purvi Jardos	D.D University , NADIAD, Gujarat	Faculty	CS
Sandeep Bhargava	Poornima College of Engg, Jaipur	Faculty	CS

In-house Students:

Name	Institute	Position	Department
Gaurav Hotwani	SKIT, Jaipur	Student	EC
Rishabh Rana	SKIT, Jaipur	Student	EC
Vaibhav Sarraf	SKIT, Jaipur	Student	EC
Harshita Khandelwal	SKIT, Jaipur	Student	EC
Kajal Kumari	SKIT, Jaipur	Student	EC
Purva Shah	SKIT, Jaipur	Student	EC
Yaman Sharma	SKIT, Jaipur	Student	EC
Yash Vardhan Singh	SKIT, Jaipur	Student	EC
Utsav Pareek	SKIT, Jaipur	Student	EC
Anukrati Bansal	SKIT, Jaipur	Student	EC
Prajwal Singh Chouhan	SKIT, Jaipur	Student	EC
Uma	SKIT, Jaipur	Student	EC
Priyanshu Saxena	SKIT, Jaipur	Student	EC
Tanu Sharma	SKIT, Jaipur	Student	EC
Rohit Vaishnav	SKIT, Jaipur	Student	EC
Kanak Sharma	SKIT, Jaipur	Student	EC
Rachit Jain	SKIT, Jaipur	Student	EC
Aditi Gupta	SKIT, Jaipur	Student	EC
Sheikh Sohrab	SKIT, Jaipur	Student	EC
Kritika Shrivastav	SKIT, Jaipur	Student	EC
Sachin Hotwani	SKIT, Jaipur	Student	EC
Tanu Shree Gothwal	SKIT, Jaipur	Student	EC
Vinay Singh Tanwar	SKIT, Jaipur	Student	EC
Riya Khandelwal	SKIT, Jaipur	Student	EC
Rachit Jha	SKIT, Jaipur	Student	EC
Anirudh Verma	SKIT, Jaipur	Student	EC
Aditya Kabra	SKIT, Jaipur	Student	EC
Atul Gaur	SKIT, Jaipur	Student	EC
Anirudh Verma	SKIT, Jaipur	Student	EC
Aditya Kabra	SKIT, Jaipur	Student	EC

Atul Gaur	SKIT, Jaipur	Student	EC
Ritika Gupta	SKIT, Jaipur	Student	EC
Himanshu Singhal	SKIT, Jaipur	Student	EC
Deepika Khandelwal	SKIT, Jaipur	Student	EC
AJAY KUMAWAT	SKIT, Jaipur	Student	EC
Chetan Sharma	SKIT, Jaipur	Student	EC
Mayur Sharma	SKIT, Jaipur	Student	EC
Piyush Gupta	SKIT, Jaipur	Student	EC
Rishabh Singh Shekhawat	SKIT, Jaipur	Student	EC
Sarthak Chauhan	SKIT, Jaipur	Student	EC
Vipul Jain	SKIT, Jaipur	Student	EC
Saqeeb	SKIT, Jaipur	Student	EC
Kiran Vishnoi	SKIT, Jaipur	Student	EC
AYUSHI SHEKHAR	SKIT, Jaipur	Student	EC
Opal Mishra	SKIT, Jaipur	Student	EC
Aditi Sharma	SKIT, Jaipur	Student	EC
Mahima Bhoi	SKIT, Jaipur	Student	EC
Vishnu Kumar	SKIT, Jaipur	Student	EC
Shankar kumar	SKIT, Jaipur	Student	EC
Bhumika	SKIT, Jaipur	Student	EC
LAKSHITA HADA	SKIT, Jaipur	Student	EC
Kirti Kumawat	SKIT, Jaipur	Student	EC
Hitesh Bhojwani	SKIT, Jaipur	Student	EC
Madhulika Jain	SKIT, Jaipur	Student	EC
Mahima Choudhary	SKIT, Jaipur	Student	EC
Anshul Kothari	SKIT, Jaipur	Student	EC
Shubham Dalal	SKIT, Jaipur	Student	EC
Keshav Kishore Chhipa	SKIT, Jaipur	Student	EC
Khushboo Sharma	SKIT, Jaipur	Student	EC
Mohit Gupta	SKIT, Jaipur	Student	EC

Kirti Kumawat	SKIT, Jaipur	Student	EC
Ajat Pareek	SKIT, Jaipur	Student	EC
Anupriya	SKIT, Jaipur	Student	EC
Shamim Banu	SKIT, Jaipur	Student	EC
Ravi Sharma	SKIT, Jaipur	Student	EC
Aman Solanki	SKIT, Jaipur	Student	EC
Sanju Choudhary	SKIT, Jaipur	Student	EC
Raj Surya	SKIT, Jaipur	Student	EC
Sahil Khan	SKIT, Jaipur	Student	EC
Abhishek Kumar	SKIT, Jaipur	Student	EC
Mitanshu Gupta	SKIT, Jaipur	Student	EC
Lalit Kumar	SKIT, Jaipur	Student	EC
Kundan Raj	SKIT, Jaipur	Student	EC
Akashya Arya	SKIT, Jaipur	Student	EC
Shankan Mathur	SKIT, Jaipur	Student	EC
Falguni Sharma	SKIT, Jaipur	Student	EC
Sharad Gupta	SKIT, Jaipur	Student	EC
Neha Kapoor	SKIT, Jaipur	Student	EC
Ruchi Kumari	SKIT, Jaipur	Student	EC
Vjay Kuamar	SKIT, Jaipur	Student	EC
Pulkit	SKIT, Jaipur	Student	EC
Bhaibhav Kumar	SKIT, Jaipur	Student	EC
Neha	SKIT, Jaipur	Student	EC
Jitisha S. Gupta	SKIT, Jaipur	Student	EC
Kanak Agrawal	SKIT, Jaipur	Student	EC
ILA ROY	SKIT, Jaipur	Student	EC
HIMANSHU SHARMA	SKIT, Jaipur	Student	EC
Rishika Jain	SKIT, Jaipur	Student	EC
PRERNA VERMA	SKIT, Jaipur	Student	EC

In-house Faculty:

Name	Institute	Department
Niketa Sharma	SKIT, Jaipur	CS /IT
Vijeta Khicha	SKIT, Jaipur	CS/IT
Dr. Sunita Gupta	SKIT, Jaipur	CS /IT
Nidhi Srivastav	SKIT, Jaipur	CS /IT
Dr. Achin Srivastav	SKIT, Jaipur	ME
Shanu Tripathi	SKIT, Jaipur	CS /IT
Nikhar Bhatnagar	SKIT, Jaipur	CS /IT
Rubal Deep Gill	SKIT, Jaipur	CS /IT
Anjali Pandey	SKIT, Jaipur	CS /IT
Dr. Swati Arora	SKIT, Jaipur	EC
Dr.Rukhsar Zafar	SKIT, Jaipur	EC
Dr. Monika Mathur	SKIT, Jaipur	EC
Kajal Mathur	SKIT, Jaipur	CS /IT
Jayprakash Vijay	SKIT, Jaipur	EC
Manju Choudhary	SKIT, Jaipur	EC
Pallav Rawal	SKIT, Jaipur	EC
Sushila Vishnoi	SKIT, Jaipur	CS /IT
Sushant Kumar	SKIT, Jaipur	CS /IT
Priyanka Sharma	SKIT, Jaipur	CS /IT
Priyanka Bhardwaj	SKIT, Jaipur	CS /IT
Harpreet Singh Gill	SKIT, Jaipur	CS /IT
Subhi Jain	SKIT, Jaipur	EC
Vikas Pathak	SKIT, Jaipur	EC
Ankit Aggarwal	SKIT, Jaipur	EC
Sudhesh Garg	SKIT, Jaipur	ME
Amit Kuamr Bansal	SKIT, Jaipur	ME
Naveen Jain	SKIT, Jaipur	CS /IT
Priyanka Sharma	SKIT, Jaipur	EC
Richa Sharma	SKIT, Jaipur	EC
Namrata Joshi	SKIT, Jaipur	EC
Rajni Idiwal	SKIT, Jaipur	EC
Gloria Joseph	SKIT, Jaipur	EC
Ravi Jangir	SKIT, Jaipur	EC
Abhinandan Jain	SKIT, Jaipur	EC
Harshal Nigam	SKIT, Jaipur	EC
Sunil Lakhawat	SKIT, Jaipur	EC
Neha Janu	SKIT, Jaipur	CS /IT
Rahul Pandey	SKIT, Jaipur	EC
Neeraj Jain	SKIT, Jaipur	EC
Lalit Kumar Lata	SKIT, Jaipur	EC
Sunil Dhankhar	SKIT, Jaipur	CS /IT
Pankaj Dadheech	SKIT, Jaipur	CS /IT

Neha Mathur	SKIT, Jaipur	CS /IT
Yogendra Gupta	SKIT, Jaipur	CS /IT
Dr. Shubhara Saxena	SKIT, Jaipur	CS /IT
Vikram Singh	SKIT, Jaipur	EE

c. Proceedings of each day

25 March 2019

Beginning with the occasion, the event was inaugurated by Chief Guest Prof. R. P. Yadav (Former Vice- Chancellor RTU, Kota) who is currently working at Malaviya National Institute of Technology Jaipur. The other guests who graced the occasion with their presence were Sh. Jaipal Meel (Director-SKIT), Prof S L Surana (Director Academics SKIT), Prof. Ramesh Kumar Pachar (Principal SKIT), Dr. S.J .Nanda (MNIT Jaipur), Prof.(Dr) S.K.Bhatnagar (Director Research & Head Deptt. of Electronics & Comm. Engineering, SKIT, Jaipur), Prof (Dr) Mukesh Arora (Deptt. of Electronics & Comm. Engineering, SKIT, Jaipur) and Dr. Parmod Gaur, (Researcher at Neuro-Imaging Technology, Ulster University, Londonderry). Prof. R. P. Yadav addressed the audience with the prospective of emerging fields in the artificial intelligence (AI). Dr.S.L.Surana motivated students to opt for current trends like AI, Neural Network by emphasizing on the usefulness and importance of these topics in real life. The first keynote session was delivered by Dr. Satyasai Jagannath Nanda, (Assistant Professor, Deptt. of Electronics & Comm. Engineering, MNIT, Jaipur). He is one the key researcher in this field. The lecture provided the basics of the neural network and its architecture. Followed by, a special interaction session organized for the students with, Dr.Parmod Gaur, who is at present Researcher in Neuro-Imaging Technology, Ulster University, Londonderry. He opened the new directions of foreign study for students and researchers. Also, student's enquired their perspectives of research and further studies. After this session, hands on practice were designed on MATLAB platform, this lab was headed by Dr. Satyasai Jagannath Nanda, where a neural network functioning as AND gate was designed. The inquest nature of the student to grasp the new horizons of knowledge soon ended the first day of the event.

26 March 2019

The commencement of the second day, began with lecture of Dr. Amit M. Joshi, (Assistant Professor, Deptt. of Electronics & Comm. Engineering, MNIT Jaipur). He enlightened the audience with problems of big data and discussed various methodologies in the process of data mining. Mr. Joshi continued with us for the lab session where K-means algorithm the first clustering algorithm in data mining was designed. Followed by this was the session on fuzzy logic and deep learning by Prof Nithin V. George (Associate Professor, Deptt. of

Electrical Engineering, IIT Gandhinagar). He simplified the concept of fuzzy systems, deep learning and designing of convolutional neural network.

The event concluded with valedictory function. The guest who joined us for the valedictory function were Prof Nithin V. George (Associate Professor, Deptt. of Electrical Engineering, IIT Gandhinagar) , Dr. Satyasai Jagannath Nanda (Assistant Professor, Deptt. of Electronics & Comm. Engineering, MNIT, Jaipur) Prof.(Dr) S.K.Bhatnagar (Director Research & Head Deptt. of Electronics & Comm. Engineering, SKIT, Jaipur) and Prof (Dr) Mukesh Arora (Deptt. of Electronics & Comm. Engineering, SKIT, Jaipur) the certificates were distributed to the participants by them.

d. Attainment of the objective:

The participants were able to design a system component or process to meet desired needs within realistic constraints such as economic, environmental, social, health and safety, manufacturability and sustainability, Recognize of the need for, and an ability to engage in life-long learning., Carry out research in different areas of artificial intelligence, machine learning, resulting in publications and product development

4. Enclosures

a. Brochure:

National Workshop
On
Artificial Intelligence with Deep Learning (AIDL-2K19)
25-26 March, 2019
DST Rajasthan Sponsored

CHIEF PATRON

Sh V. Saravana Kumar, Director, DST, Rajasthan

PATRON

Sh. Raja Ram Meel, Patron, SKIT
Sh. Surja Ram Meel, Chairman, SKIT

ADVISORY COMMITTEE

Sh. Jaipal Meel, Director, SKIT
Ms. Rachna Meel, Registrar, SKIT
Prof. (Dr.) S.L. Surana, Director, (Academics)
Prof. (Dr.) Ramesh Kr. Pachar, Principal, SKIT
Sh. S. N. Vijayvargiya, Dean (R&D), SKIT
Prof. (Dr.) N. K. Banthiya, Head PAQIC, SKIT

GENERAL CHAIR

Prof. (Dr.) S. K. Bhatnagar,
Director (Research) & Head, ECE Department, SKIT
Prof. (Dr.) Mukesh Arora
ECE Department, SKIT

ABOUT SKIT

The institute is inspired from the learning's of Swami Keshvanand Ji. The Institute is affiliated to Rajasthan Technical University, Kota and approved by All India Council for Technical Education (AICTE), Ministry of Human Resource Development, and government of India to offer Doctoral, Postgraduate and Graduate Courses in Engineering and Management. The departments of institute are accredited by National Board of Accreditation (NBA).

DEPARTMENT OF ECE

We have a rich tradition in research and teaching. All efforts are subtly harnessed with the aim of preparing the budding engineers to face the challenging dimensions of technical excellence in various areas of engineering.

ORGANISED BY:

Department of Electronics and Communication, SKIT, Jaipur

The progress has been rapid in the field of Electronics where the main aim is to build Intelligent Systems which can understand the rich visual world around us. Growth is mainly driven by diverse applications of Artificial Intelligence in various fields. In order to inculcate the exposure among the participants a Two days national workshop is being organized for all students, faculty, and persons from industry and doctoral from reputed organizations. The objective is to provide participants a platform to the state-of-the-art tools in Deep learning, neural network and artificial intelligence. Through this workshop research in the field of Artificial Intelligence can be promoted among the students. The hands-on sessions are specially included for participants on MATLAB platform to deliver them the practical knowledge.

Programme topics

A. Neural Network
B. Evolutionary Optimization
C. Data mining
D. Fuzzy Logic

Invited Experts –

1. Prof. Nitin.V.George, Associate Professor, Department of Electrical Engineering, Indian Institute of Technology Ghandhinagar, India
2. Dr. Amapurna Panda, Department of Mathematics, Indian Institute of Technology Madras, India
3. Dr.Satyasai J. Nanda, Assistant Professor, Department of Electronics and Communication, Malaviya National Institute of Technology Jaipur, India

Programme co-ordinators

Kiran Rathi	kiranrathi25@gmail.com	8058555540
Pooja Choudhary	poojachoudhary87@gmail.com	8875140140
Urvashi P. Shukla	shuklaurvashiec50@yahoo.com	8079010412

Registration

Registration is open to students, faculty, industry persons, doctoral and postgraduate students of programmes related to all the branches of Enginerring. Participants will be admitted on a *first-come first-served* basis. Selected participants will be notified on or before 20th March, 2019. Register on line at www.skit.ac.in.

Fee:
(A) The registration fees for students (outside SKIT) is Rs.300/-.
(B) The participants from academia and research scholars are required to pay a fee of Rs. 700/-.
(C) However, the participants from industries would pay a fee of Rs.1000/-.
(D) The fee covers the participation in the programme along with breakfast & lunch on all the days of the workshop.
(E) The travel and other expenses would have to be borne by the participants or their parent organizations.
(F) Lodging for very limited number of outside participants is available on first-come first-served and additional payment basis.
(G) The registration is to be done by filling the Google form at link:
https://bit.ly/2UpZ5dn

Account Holder Name	Swami Keshvanand Institute of Technology
Name of Bank	HDFC Bank,Villa station, Jaipur
Account No	50100200092582
IFSC Code	HDFC0001329

Further query: Please contact the programme co-ordinators.

b. Details of funding:

c. **Souvenir :** NIL

d. **Proceedings :** NIL

e. **Photographs:**

Event Photographs

Chief Guest: Prof. R. P. Yadav, MNIT Jaipur

आर्टिफिशियल इंटेलीजेंस की महत्ता बताई

डेली न्यूज, mix रिपोर्टर

जयपुर। स्वामी केशवानन्द इंस्टीट्यूट ऑफ टेक्नोलॉजी में सोमवार को इलेक्ट्रानिक्स एंड कम्युनिकेशन इंजीनियरिंग विभाग व डीएसटी राजस्थान के संयुक्त तत्वाधान में आर्टिफिशियल इंटेलिजेंस विथ डीप लर्निंग विषय पर सोमवार को दो दिवसीय वर्कशॉप की शुरुआत हुई। इस वर्कशॉप के मुख्य अतिथी डॉ. आरपी यादव, पूर्व वीसी आरटीयू कोटा, डॉ. एसजे नन्दा, डॉ. पी

गौर थे। कार्यक्रम में डॉ. यादव ने आर्टिफिशियल इंटेलिजेंस विषय में शोध के अवसरों को बताते हुए स्टूडेंट्स को प्रोत्साहित किया। डॉ. नन्दा ने न्यूरल नेटवर्क तथा डॉ. गौर ने ब्रेन कम्प्यूटर

इंटरफेस पर लेक्चर देते हुए स्टूडेन्ट्स से इंटरेक्शन किया। डॉ. सुराना ने आर्टिशियल इंटेलिजेंस विषय की महत्ता तथा स्टूडेंट्स के लिए इसकी उपयोगिता को विस्तार से बताया।