

MALAVIYA NATIONAL INSTITUTE OF TECHNOLOGY



25/11/2024

to

29/11/2024

2024

Neural Network Uncovered:

A Hands-on Workshop



Organized by:
Robotics & Machine Analytics (RAMAN) Lab
Department of Electrical Engineering
Malaviya National Institute of Technology Jaipur 302017, Rajasthan, India
www.mnit.ac.in, www.ramanlab.co.in

About MNIT

Malaviya National Institute of Technology (MNIT) Jaipur is one of the NITs established by Ministry of Human Resource Development, Government of India. The Institute, earlier known as MREC, was established in 1963 as a joint venture of the state and central Governments. Later in 2002, the college was given the status of National Institute of Technology and on August 15, 2007, proclaimed Institute of National Importance through Act of Parliament. MNIT campus spreads over 325 acres of lush green area in the prime location of Jaipur city. At present, in addition to research, consultancy and developmental activities, the Institute offers UG and PG (M. Tech./M.Sc. & Ph.D.) level courses to about 5000 students in almost all leading fields of engineering, technology, management and sciences.



About Department of EE

The Electrical Engineering Department is one of the oldest departments of the institute which was established in the year 1963. At present, the department offers undergraduate courses in Electrical Engineering along with postgraduate courses in Power Systems, Power Electronics and drives, and Power Systems Management. The department has undertaken several research projects/schemes with financial assistance from AICTE, DST, and MHRD, including international collaborative research projects.

About Workshop

The workshop is designed for understanding and implementing the Neural Network and deep dive in Deep Learning (DL) architectures for different fields. The applications of the Deep Learning algorithms are quite broad including areas of engineering, business, and medicine. With the growing applications of Deep Learning, engineering UG/PG students and faculties need to gain hands-on experience in implementing of Deep Learning techniques on different projects. This workshop will include lectures and hands-on lab sessions for the participants to learn in-depth theoretical concepts of different deep learning architectures and also some more insight related to ML techniques and their programming implementation in Python.

Patron

Prof. N P Padhy
Director, MNIT Jaipur

Convener

Prof. Nikhil Gupta
Head

Department of Electrical Engineering, MNIT Jaipur

Coordinators

Dr. Surender Hans
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Prof. Rajesh Kumar
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Important Dates

Last date of registration	18 th Nov, 2024
Confirmation of selection	20 th Nov, 2024
Course start date	25 th Nov, 2024

Course Contents

Neural Networks (NN): Introduction of Neural Networks, Activation Functions, Loss Functions, Back Propagation, Regularization. Multilayer Perceptron, Deep Neural Network.

Convolutional Neural Networks (CNN): Introduction to CNN, Key Components of CNN, CNN Family architecture (LeNet, AlexNet, VGG16, VGG19, ResNet, InceptionNet),

Recurrent Neural Networks (RNN) & LSTM: Introduction to RNN, Vanishing Gradient Problems in RNN, Long Short Term Memory (LSTM), Gates in LSTM.

Generative Adversarial Networks (GANs): Concept of Generator and Discriminator Networks, Overview on Type of GANs.

Hands on Session: Application and Hands on Experience on NN, CNN, RNN, LSTM, and GANs.

Registration Fees

UG Students	Rs. 885/-
PG students/PhD	Rs. 1,180/-
Faculty	Rs. 1,770/-
Industrial Employee	Rs. 2,360/-

Note: 18% GST is included in the registration fees.

Payment Mode

Demand Draft:

Demand draft (DD) payable at Jaipur, in name of:
Registrar (Sponsored Research) MNIT

NEFT/IMPS:

Name: Registrar (Sponsored Research) MNIT
Account No.: 676801700388
IFSC CODE: ICIC0006768 (ICICI BANK, MNIT)

About RAMAN Lab

RAMAN Lab was established in September 2014 by Prof. Rajesh Kumar in the Department of Electrical Engineering at Malaviya National Institute of Technology (MNIT) Jaipur, Jaipur, Rajasthan, India. The lab focuses on applying Computational Intelligent techniques, in various interdisciplinary research areas, including control of Robotics and Automation, Biomedical Signal and Image Processing, Bioinformatics, Healthcare, Energy Management, and Electric Vehicles.

Registration Form Details

After fee submission, the applicant must register themselves by submitting details on <https://forms.gle/XM9Ufykj5rJS5CDSA>

Further details of the internship and instructions for filling the form may be found on [Raman Lab Website](#).

The applicant may also mail the filled registration form (given) with the appropriate requirements to the address of correspondence mentioned.

All registration forms must be received by 18th November, 2024. Registration fee is non-refundable.

The confirmation of the selection to attend the course will be emailed by the mentioned date.

For further details about the course, contact ramanlabmnit@gmail.com

Address for Correspondence

Robotics And Machine Analytics (RAMAN) Lab,
Department of Electrical Engineering,
Malaviya National Institute of Technology
J. L. N. Marg, Jaipur-302017 (Rajasthan)

Registration Form

5Days Workshop
on

Neural Network Uncovered: A Hands-on Workshop
Malaviya National Institute of Technology Jaipur
25th Nov, 2024 – 29th Nov, 2024

Name:
Category (UG/PG/Faculty):
Semester & Department:
Specialization (PG/Faculty):
Institute:
Mailing Address:
Phone (M):
(O)
Email:

Registration fee Details:

Mode of payment (DD or NEFT/IMPS):

Transaction No./ DD No.

Amount Paid:

The above information is accurate to the best of my knowledge at the time of completion of the form. If selected, I agree to abide by the rules and regulations of the program and MNIT Jaipur.

Date: Candidate's Signature

The applicant is permitted to participate in the above program for the mentioned duration.

Date: Signature of HoD with Seal

Scan for Registration Form

