

R V College of Engineering[®]

R V Vidyanikethan Post, Mysuru Road, Bengaluru - 560 059

Autonomous Institution affiliated to Visvesvaraya Technological University, Belagavi

Approved By AICTE, New Delhi, Accredited By NBA, New Delhi

Five Days Faculty Development Program (FDP) (Offline Mode)

on

Application of Machine Learning Algorithms in Aerospace Engineering

09th to 13th May 2022

Organised by
Department of Aerospace Engineering
RVCE



About R V College of Engineering

R.V. College of Engineering (RVCE) established in 1963 is one of the earliest self-financing engineering colleges in the country. Today RVCE offers 12 Under Graduate Engineering programs, 22 Master's Degree programs and Doctoral Studies. Rated one amongst the top ten self-financing Engineering Institutions in the country offering quality technical education.

About the Aerospace Engineering Department

The Department was started in the year 2015 to offer UG program in Aerospace Engineering. Imparting quality education with emphasis on research, sustainable technologies and entrepreneurship for societal symbiosis has been the primary motive of the program. The Department's main objective is to create expertise in specialized areas in aerospace engineering such as aerodynamics, structural design, propulsion systems & control systems with focus on research and innovation.

About the Faculty Development Program (FDP)

Machine learning (ML) is the scientific study of algorithms and statistical models to perform a specific task without using explicit instructions, relying on patterns and inference instead. In simple words, machine learning is nothing but data analysis where large critical data is analyzed and inferred to solve engineering problems.

Presently, ML is the buzz word of today's Artificial Intelligence (AI) industry and is rapidly transforming the technological landscapes with far reaching benefits. Undoubtedly, machine learning is also making huge strides into the Aerospace domain which caters to the military, commercial, and space exploration sectors. The availability of huge technical and passenger data would enable the application of machine learning in streamlining aircraft design, manufacturing, system analysis, maintenance, overhauling, route planning, logistic handling, customer management, and a lot more. In coming years, Machine Learning would be playing a much bigger role in designing efficient workflow processes.

The faculty development program in “Applications of Machine Learning Algorithms in Aerospace Engineering” is designed to provide a platform for understanding the nuances of Machine Learning and its applications specific to Aerospace Engineering. The objectives of the Machine Learning FDP would be as highlighted:

- Provide with the fundamentals of Machine Learning
- Extend the application of Machine Learning to Aerospace Engineering Domain
- Exposure to real time case studies involving Machine Learning
- Hands-on and practice sessions

Registration Fee For Faculty- Rs 3000/- plus GST (18% GST Rs.540)

For Registration

<https://docs.google.com/forms/d/e/1FAIpQLSf40y--4YkYOhGXJOF5YinwSxCo7O3HENupSsXXnpMfcEsmOQ/viewform?vc=0&τ=0&w=1&flr=0>

For Payment: <https://rzp.io/l/bIDpXauzo>

NOTE

- Prior registration is mandatory to attend FDP
- The registration amount includes registration kit, high tea with light refreshments and lunch on all five days
- Hostel accommodation would be provided for outstation participants on chargeable basis
- The Event is planned for accommodating 40-50 participants and the confirmation of participation is based on first-come-first-basis
- Certificate will be issued to the participant on successful completion of FDP. Successful Completion needs 100% attendance and fulfillment of all the assignments, if any.

Resource Persons

Dr Husain Kanchwala

Assistant Professor,
Centre of Automotive Engineering and Tribology
Indian Institute of Technology-Delhi

Dr Sarat Kumar Maharana

Chairman, BoS, VTU (Aero)
Prof, Dean and Head,
Department of Aeronautical Engineering
Acharya Institute of Technology, Bengaluru

Mr Apurv Anand

Senior Software Engineer
Baker Hughes, A GE Company

Ms Anusha Rammohan

Senior Tech Lead,
Myelin Foundry

Dr Madhukar Rao

Technical Director, ACRi Infotech Pvt. Ltd. (ACRi India)
Professor (adjunct),
CFD Virtual Reality Institute
Bengaluru, Karnataka, India

Mr Alok Tiwari

Analytics Director
OLA Electric
Bengaluru, Karnataka

Dr Pramod Naik

Tech Director,
AIEdge Technologies Private Limited

Mr Karunesh Parakh

MD & CEO,
Tantaliser AlterSpace

Chief Patrons

Dr. M K Panduranga Setty, President, RSST
Sri. A V S Murthy, Hon. Secretary, RSST
Sri. D P Nagraj, Joint Secretary, RSST
Dr. M P Shyam, Trustee, RSST

Co-Patrons

Dr. K N Subramanya, Principal, RVCE
Dr. K S Geetha, Vice-Principal, RVCE

Convenor

Dr. Ravindra S Kulkarni, Prof & Head, Dept of Aerospace Engg, RVCE

Co-ordinators

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Faculty Development Program (FDP)

On

Application of Machine Learning Algorithms in Aerospace Engineering

09/05/2022 to 13/05/2022

TENTATIVE SCHEDULE OF EVENTS

Date	Session-1 9.30 AM-11.00 AM		Session-2 11.30 AM -1.00 PM		Session-3 2.00 PM -3.30 PM
09/05/22 Monday	Inaugural Session & Keynote Address Dr S K Maharana		Background and Motivation for Machine Learning in Aerospace Engg Dr S K Maharana		Machine Learning Algorithm: Steps to create a model Dr S K Maharana
10/05/22 Tuesday	Supervised Learning Mr Apurv Anand		AI/ML for Aerospace Applications Mr Apurv Anand		Support vector Machines, kernels and neural networks Ms Anusha Rammohan
11/05/22 Wednesday	Unsupervised Learning Mr Alok Tiwari		Clustering and dimensionality reduction Dr Hussain Kanchwala		Hands-on training in machine Learning Mr Alok Tiwari
12/05/22 Thursday	Linear regression with demonstration Dr S K Maharana		Matlab Tutorial Dr Pramod Naik		Display/Exhibition Dr Pramod Naik & AI Edge
13/05/22 Friday	Best practices in Machine Learning Dr Madhukar Rao		Case studies and applications in Aerospace Engg Dr Madhukar Rao		Display/Exhibition (Tantalizer Aerospace) & Valedictory