APPLICATION FORM

Short Term Course (STC)

(Artificial Intelligence and Machine Learning)

(7th March to 11th March 2019)

Name: ……………………......…………...........
(in capital letters)

Designation: ………………….....……………......

Department: ……………….…...…………….

Organization: ……………….…………..……......

Address: ……………………………...........

……………………….………..........................

Mobile No.: ……………….……………………….

Email: …………..……………………...........

Accommodation: Required / Not required

Signature with Date: …………………….........

SPONSORSHIP CERTIFICATE

It is certified that our Institute is recognized by AICTE. The applicant is hereby sponsored and will be permitted to attend the above STC, if selected.

Date: ……….. Signature and Seal
of the sponsoring authority

(Photo copy additional copies of this form, if needed)

(scanned copy of registration form can also be sent by E-mail)

REGISTRATION

Teachers of AICTE recognized Engineering Institutions are eligible to apply for the course. Accommodation will be arranged on request of outstation participants on 'first come first serve' basis. The number of participants is limited to 30 for the Program. The interested candidates need to apply on the prescribed format by the due date at the following address through post or by email to coordinator or co-coordinators.

ADDRESS FOR COMMUNICATION

COORDINATORS

1. **Dr. R. S. Jadon**
   Professor
   9425122675
   rsjadon@mitsgwalior.in

2. **Dr. Anshu Chaturvedi**
   Associate Professor
   9425337699
   anshu_chaturvedi@mitsgwalior.in

3. **Neha Bhardwaj**
   Assistant Professor
   9926663664
   nehabhardwaj@mitsgwalior.in

4. **Parul Saxena**
   Assistant Professor
   9406503677
   gaurparul2007@mitsgwalior.in

Last date of receiving duly filled application form is **28th February 2019**. The candidate will be informed of the selection in advance via email.

FINANCIAL ASSISTANCE

There will be no registration fee for the participants. Free boarding and lodging will be arranged in the Institute hostels/Guest house or Hotels. Reimbursement towards TA/DA will be made to participants attending the course in full. TA is limited to III AC (to & fro via train).

AICTE-QIP SPONSORED

ONE-WEEK
Short Term Course
on
Artificial Intelligence and Machine Learning

7th March to 11th March 2019

Organized by
Department of Computer Science and Engineering & Information Technology

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE
(A Govt. Aided UGC Autonomous & NAAC Accredited Institute under RGPV, Bhopal, MP)
Race Course Road, Gola Ka Mandir, Gwalior, M.P. 474005
website: www.mitsgwalior.in

PREAMBLE

The field of engineering and technology are facing unparallel changes and consolidations. As educators, we must be continuously aware of these developments so that we cannot only define a fixed path but also we have to take full advancement in engineering and technology. Keeping view of the current thrust, relevance and importance of the development in engineering and technology, the faculties of technical institute have to keep a pace with its exchanging trends for social and industrial benefits. Researchers and Scientists have applied modeling and computational techniques as a tool to represent the various problems in real word situations.

It is because of the wide applicability of Artificial Intelligence and Machine Learning in different domains of Engineering and Technology, that this FDP is being organized. The objectives of this Faculty Development Program are:

- Motivate and equip the participants with the basics as well as the recent advancements in the field of Artificial Intelligence and Machine Learning and their applications for solving wide variety of problems in various domains of engineering and Technology.
- To expose the faculties with the newer dimensions of the area with the practical approaches to tackle the real life problems in engineering and technology and other related disciplines.
- To take up various challenges of the present day to day societal problems for their acceptable logical solutions.

This Faculty Development Program will be helpful for faculty members and researchers to utilize methods, tools, and computational techniques for solving real life problems.

COURSE CONTENTS

The following topics will be covered in this FDP:

- Artificial Intelligence
  - AI Basics, Production System, Knowledge Representation, Neural Networks, Fuzzy Logic
  - Intelligent Agents: Heuristic-based search techniques, Planning and constraint satisfaction techniques.
  - Computer Vision: CNN, Pre-processing image Data, Object & face recognition
  - Visualization: Visualizing features & Kernels, TensorBoard, Synthesis and style transfer
  - Natural Language Processing: Statistical NLP and text similarity, Syntax and parsing techniques, Text summarization techniques, Semantics and Generation

- Machine Learning
  - Supervised Learning: Linear regression, Logistic regression, Naïve Bayes classifiers
  - Unsupervised Learning: K-means clustering, Hierarchical clustering, High-dimensional clustering
  - Ensemble Techniques: Decision Trees, Random Forests, Bagging, Boosting
  - Reinforcement Learning: Value based methods Q-learning, Policy based methods
  - Recommendation Systems
  - Deep Learning: NN basics, Deep Neural Networks, RNN, Deep learning applied to images using CNN, Tensor Flow for NN & DL
  - Hands-on Python programming
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RESOURCE PERSONS

Eminent Professors and experts from IITs, IIITs, NITs, and other esteemed institutions.

ABOUT MITS

Madhav Institute of Technology and Science (MITS), Gwalior was established by His Highness Late Sir Jiwaji Rao Scindia, Maharaja of Erstwhile State of Gwalior, with an aim to create world class quality engineers and technocrats capable of providing leadership in all spheres of life and society. Founded as Madhav Engineering College in 1957 with three UG programmes, this temple of learning is now about 60 years old. Since its inception, the institute has constantly strive for excellence and quality in technical education. Today, the institute offers nine UG programmes along with research programmes leading to Masters and Ph.D. degree in various specializations of engineering and technology. All the departments of the institute have well equipped laboratories and experienced faculties. The institute is a minor QIP centre of AICTE for Ph.D. programme in five disciplines. The institute is also funded by World Bank under TEQIP phase III to strengthen the quality of technical education.

LOCATION

Gwalior city has major road and rail connectivity. The Institute is located on Agra-Bombay Road (NH–3) and is approximately 320 KM from Delhi. Most of the south bound trains from Delhi stop at the Gwalior station. The institute is located in the heart of city and is at a distance of about 2 km from Gwalior Bus Stand/Gwalior Railway Station.

ABOUT THE DEPARTMENT

The department of CSE & IT has an excellent & rich history and an outstanding record of contributions to the profession and community. The department is well recognized for excellence in facilities and teaching. The Department offers UG and PG Programmes. The Department has a comprehensive curriculum on topics related to all aspects of Computer Hardware and Software with an emphasis on practical learning. The course structure is up-to-date and includes courses on emerging topics to equip our students with the latest developments in Computer Science and Engineering. The Department has state-of-the-art infrastructure and computing equipment supported by high speed Ethernet and wireless networks. Our faculty members aim at delivering top class education blending their rich research experience with classroom teaching. The Department has started a new ACM Chapter and signed a MoU with Infosys under Infosys Campus Connect Program.