AICTE Training And Learning (ATAL) Programme
On
ARTIFICIAL INTELLIGENCE (AI)
Organized by
Motilal Nehru National Institute of Technology Allahabad
Duration: May 11 - 15, 2020

About the Institute:

Motilal Nehru National Institute of Technology Allahabad (MNNIT) is an Institute with total commitment to quality and excellence in academic pursuits. With over 60 years of experience and achievements, in the field of technical education, it has traversed a long way. With the enactment of National Institutes of Technology Act-2007, the Institute has been granted the status of Institution of National Importance. The Institute now offers nine B.Tech., nineteen M.Tech. Degree Programmes (including part-time), MCA, MBA, and M.Sc. (Mathematics and Scientific Computing) programmes and also registers candidates for the Ph.D. degree. The Institute has been recognized by the Government of India as one of the centers for the Quality Improvement Programme for M.Tech. and Ph.D. The Institute has been selected as a Lead Institution under World Bank funded Government of India Project on Technical Education Quality Improvement Programme (TEQIP) (2002-2007). Two state level institutions are networked with MNNIT under the project.

Course Content:

Concept of AI, history, current status, scope, agents, environments, Problem Formulations, Review of tree and graph structures, State space representation, Search graph and Search tree. Random search, Search with closed and open list, Depth first and Breadth first search, Heuristic search, Best first search, A* algorithm, Game Search, Probability, conditional probability, Bayes Rule, Bayesian Networks- representation, construction and inference, temporal model, hidden Markov model. MDP formulation, utility theory, utility functions, value iteration, policy iteration and partially observable MDPs. Passive reinforcement learning, direct utility estimation, adaptive dynamic programming, temporal difference learning, active reinforcement learning- Q learning.

Who can participate:

The faculty members of the AICTE approved institutions, research scholars, PG Scholars, participants from Government, Industry (Bureaucrats/Technicians/Participants from Industry etc.) and staff of host Institution.

Registration:

Registration for the workshop will be on first come first serve basis. *No registration fee will be charged from the participant and they will be provided free course material on Moodle. For registration please visit the URL below:*

https://docs.google.com/forms/d/1G8SlM1tpvBi4mdptxq2mTkJlofdF8r2s4ewbsIC9VvY/viewform?edit_requested=true

Teaching Learning Method: All the sessions will be conducted using Web Conferencing System (MS Teams or Webex) and Learning Management System (Moodle). All the participants are required to have a Laptop/Smart Phone with Internet Connectivity to attend the live sessions. For Practical Sessions, Participants are required to have a Laptop/Desktop Computer with Internet connectivity. Required Software will be made available for download.

Participation Certificate: A participation certificate will be issued by ATAL on successful completion of the course. MNNIT Allahabad will also issue a signed copy of participation certificate and will sent to your address by post. 100% participation is mandatory to be eligible for Certificate.

Venue: No physical presence is needed; the programme will be coordinated by MNNIT Allahabad. All the sessions will be conducted using Web Conferencing System (MS Teams or Webex) and Learning Management System (Moodle).

Patron
Prof Rajeev Tripathi
Director
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Schedule

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Dates	10:00 AM to 11:30 AM	11:30 AM to 12.00 PM	12.00 PM to 1.30 PM	1.30 PM to 2:30 PM	2:30 PM to 4.00 PM	4:15 PM to 4:45 PM
11/05/2020	Inauguration and Programme Introduction	Break	Session 1 Introduction to AI	Lunch Break	Session 2 Review of Tree and Graph Structure	
12/05/2020	Session 3 Search Algorithm	Break	Session 4 Heuristic Search Game Search	Lunch Break	Session 5 Introduction to Probability/Conditional Probability,	
13/05/2020	Session 6 Bayes Rule	Break	Session 7 Bayesian Network-representation	Lunch Break	Session 8 Hands-On Experience And Interactive Session	
14/05/2020	Session 9 Markov Decision Process	Break	Session 10 Policy iteration and partially observable MDPs	Lunch Break	Session 11 Hands-On Experience And Interactive Session	
15/05/2020	Session 12 Reinforcement Learning	Break	Session 13 Adaptive Dynamic Programming	Lunch Break	Session 14 Hands-On Experience And Interactive Session	Feedback and Valedictory Session

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