



QIP Short Term Course on Artificial Intelligence and Fuzzy Systems: Theories, Concepts and its Applications

December 9th - 13th, 2019

Indian Institute of Technology Kanpur, India

About

This course will provide an essential background as well as recent developments in the field of Artificial Intelligence and Fuzzy Systems. Illustration of several challenges related to these fields will be discussed in this course along with their applications into various real-life problems like computer vision, condition-based monitoring, bioinformatics, transportation, industrial automation, flight parameter estimation, security, healthcare, etc. The main thing about traditional and computing methods is that as complex as they may seem, they're still machine-like. They need a lot of domain expertise as human intervention is only capable of what they're designed for; nothing more, nothing less, whereas for such applications, fuzzy logic shows a lot more promise. Artificial intelligence aims to create intelligent machines having certain traits such as reasoning, decision making, analytics, learning, planning, problem-solving, etc. Artificial Intelligence and Fuzzy Systems can deal with real-world applications more efficiently by embedding the learning models and facilitating uncertainties.

Course Contents

- ✚ Artificial neural network
- ✚ Fuzzy computing
- ✚ Industrial applications of artificial intelligence
- ✚ Signal and image processing
- ✚ Evolutionary computing and algorithms
- ✚ Genetic algorithms
- ✚ Optimization algorithms
- ✚ Fuzzy modeling, fuzzy diagnosis and fuzzy control
- ✚ Fuzzy inference systems
- ✚ Type-2 fuzzy set
- ✚ Adaptive neuro fuzzy inference systems (ANFIS)
- ✚ Other hybrid fuzzy networks
- ✚ Fuzzy controllers
- ✚ Other fuzzy based hybrid controllers
- ✚ Fuzzy based clustering, classification, and regression
- ✚ Deep learning and deep fuzzy networks (DFN)
- ✚ Applications of fuzzy systems into real-life problems

Important Dates

QIP category: **November 23rd, 2019 (Registration Closed)**

Non-QIP category: **November 30th, 2019 (Registration Closed)**

Registration Fees

Category	Fee (in INR)	
QIP Category No. of Seats - 30	Faculty (from AICTE approved Colleges)	No Fee (₹ 1000 as security money. To be refunded after completion of the course.)
Non-QIP Category (Self-Sponsored) No. of Seats - 50	IITK Students*	₹ 3000
	Non-IITK Students*	₹ 7500 + ₹ 1350 (GST@18%) = ₹ 8850
	Non-IITK Faculty*	₹ 10000 + ₹ 1800 (GST@18%) = ₹ 11800
	Industries/ R&D Organizations	₹ 15000 + ₹ 2700 (GST@18%) = ₹ 17700

*Students need to carry their valid ID Proof during the event.

QIP Category

- ✚ **Eligibility:** Teachers from the AICTE approved colleges are eligible to apply under this category.
- ✚ Before starting the registration process, one should have Endorsement from their Head of the Institution given at: <http://iitk.ac.in/idea/QIP2019/registration.html>
- ✚ **Registration Guidelines:** Please read the registration guidelines and payment process carefully given at: <http://iitk.ac.in/idea/QIP2019/RegistrationGuidelines.pdf>
- ✚ **Payment Process:** Please pay the applicable registration fee through SBI Collect given at: <https://www.onlinesbi.com/sbicollect/icollecthome.htm>
- ✚ Please fill the application form given at: <http://iitk.ac.in/idea/QIP2019/registration.html>
- ✚ Among the pool of applicants, only 30 teachers from AICTE approved colleges will be selected and notified for this course.
Polytechnic teachers are not allowed under QIP category.
- ✚ The QIP participants will be paid 3AC train fare for attending the course.
- ✚ Fee is refundable only if
 - Applicant has been "Selected and Participated both" under QIP category.
 - Applicant has not been selected under QIP category.

Non-QIP Category (Self-Sponsored)

- ✚ **Eligibility:** Students, faculties, and professionals from Industries/ R&D organizations are eligible to apply under this category.
- ✚ **Registration Guidelines:** Please read the registration guidelines and payment process carefully given at: <http://iitk.ac.in/idea/QIP2019/RegistrationGuidelines.pdf>
- ✚ **Payment Process:** Please pay the applicable registration fee through SBI Collect given at: <https://www.onlinesbi.com/sbicollect/icollecthome.htm>
- ✚ To complete the registration process, please fill the application from given at: <http://iitk.ac.in/idea/QIP2019/registration.html>
- ✚ NOTE: Registration fee for Non-QIP (Self-Sponsored) candidates is non-refundable.

Course Coordinator

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Sponsor



For more details, please visit: <http://iitk.ac.in/idea/QIP2019/index.html>