

**NATIONAL INSTITUTE OF TECHNOLOGY**

**TIRUCHIRAPPALLI – 620 015**

**TAMIL NADU**

**AICTE – MHRD**

Sponsored

Short Term Training Programme on

**Introduction to Intelligent Systems Engineering**

**13<sup>th</sup> July 2009 to 17<sup>th</sup> July 2009**

Organised by



**NIT, Trichy**



**AICTE, New Delhi**

Co-ordinators

**Dr. S. Kumanan**, Professor

Department of Production Engineering

**Dr. N. Sivakumaran**, Asst. Professor

Department of Instrumentation and Control  
Engineering

### **ABOUT THE COURSE**

Intelligent systems engineering (ISE) is a term used to refer to a variety of Artificial Intelligence (AI) approaches, including neural networks, evolutionary algorithms, model-based prediction and control, case-based diagnostic systems, conventional control theory, and symbolic AI. The term intelligent systems engineering is most frequently used in the context of AI applied to specific industrial challenges such as optimizing a process sequence in a sugar factory. Intelligent systems engineering tends to refer to the creation of short-term, narrow-task, marketable AI, rather than long-term, flexible, generally intelligent AI. It is a blend of mechanical, electrical and computer science engineering. Intelligent systems are usually meant to be coupled with robotics in industrial process settings, though they may be diagnostic systems connected only to passive sensors.

Intelligent systems are meant to be adaptive, to solve problems as creatively as possible with minimal human input. The field has received substantial investment from both private sectors and the public sectors. Intelligent systems generally follow a sequence of events in diagnosing and addressing a potential problem. First, the system identifies and defines the problem. Then it identifies evaluation criteria to apply to the situation, which it uses to generate a set of alternatives to the problem. There is an iterative search for a solution and evaluation of potential solutions, until a choice and recommendation is made.

### **TOPICS TO BE COVERED**

Artificial Neural Networks and Evolutionary Algorithms  
Machine Learning and Applications  
Expert Systems and Fuzzy systems  
Intelligent Systems & Control

### **FACULTY**

The course faculty includes resource persons from IISC, IITs, NITT, experts from various reputed institutions and Industries.

### **ELIGIBILITY:**

Faculty Less than 5 years of teaching experience from Mechanical, Production, Instrumentation, Electrical and Computer science.

### **REGISTRATION:**

Faculty from Academic Institutions : Nil

Participants from Industries : Rs 2000

The registration fee must be paid by DD in favour of "The Director, NIT, Tiruchirappalli-620015" and payable at SBI, NIT, Tiruchirappalli.

### **BOARDING AND LODGING:**

Boarding and lodging will be provided in the Institute hostel for the participants from academic institutions and TA will be paid as per AICTE norms. Industrial participants have to make their own arrangements for boarding and lodging and also No TA will be paid.

**Maximum No. of participants: 30**

### **IMPORTANT DATES:**

Last date for receiving application : **06-07-2009**

Intimation of Acceptance : **07-07-2009**

### DECLARATION BY THE APPLICANT

The above mentioned information is true to the best of my knowledge and belief. I agree to abide by the rules and regulations governing the AICTE-MHRD Programme. I shall attend the course for the entire duration.

Place:

Date:

Signature of Applicant

### SPONSORSHIP CERTIFICATE

Mr/Ms/Dr. \_\_\_\_\_  
is an employee of our institution and sponsored to attend the AICTE-MHRD STTP course, if selected.

Place:

Date:

Signature and  
Seal of Sponsoring authority

### ADDRESS FOR CORRESPONDENCE

Dr.S.Kumanan  
Professor and Dean (Students)  
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620015

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### REGISTRATION FORM

AICTE - MHRD

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1. Name :

2. Qualification :

3. Designation :

4. Department :

5. Official Address :

Phone :

Email :

6. Accommodation required: Yes [ ] No [ ]

7. Details of DD

Amount: DD No.:

Date :

Bank name & Place:

8. Signature of the  
Participant :

### ABOUT THE INSTITUTE

National Institute of Technology (Formerly known as REC) Tiruchirappalli is in the center of Tamil Nadu. It was started as a joint and cooperative venture of Government of India and Government of Tamil Nadu in the year 1964.

### HOW TO REACH US

Tiruchirappalli is well connected by Rail, Road and Air. The Institute is located in the Trichy-Tanjore Highway 21Kms from the Trichy Railway Junction and Bus stand. The Trichy International Airport is located 25 Kms from the institute.

