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Madanapalle Institute of Technology & Science
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Department of Computer Science & Engineering

Date: **03.10.2017**

Submitted to the Principal

**Sub: Requisition of permission for organizing the Alumni Guest Lecture -Reg.**

We are planning to organize the Guest Lecture titled on "**Soft Computing Applications**" for B.Tech III year students on 7th Oct 2017. The aim of this seminar is providing the awareness about Soft Computing Applications to the students.

We are inviting the resource person V. Bharath, Associate Software Engineer, Infosys, Banglore for giving the guest lecture talk. Kindly request you to provide permission for conducting the program in above mentioned date.

Y. C. N. Convener
Prabha Reddy

HOD
Head of the Department
Computer Science & Engineering
Madanapalle Institute of Technology & Science
MADANAPALLE-517 325.

Principal
Principal
Madanapalle Institute of
Technology & Science
MADANAPALLE

# Mandanapalle Institute of Technology & Science
(UGC - Autonomous)

## Department of Computer Science & Engineering

*Organize*
*Alumni Guest Lecture on*

## " Soft Computing Applications"

Resource Person: **Mr.V. Bharath**

Date: 07-10-2017

Venue: CSE SEMINAR HALL

| Chief Patron | Patron | Convenor |
|---|---|---|
| **Dr. N. Vijaya Bhaskar Chowdary**<br>Secretary & Correspondent | **Dr. C. Yuvaraj**<br>Principal | **Dr. M.Sreedevi**<br>HOD, CSE |

Coordinator

Mr.Y.C.A. Padmanabha Reddy,
Asst. Professor
CSE

# A Report on Alumini Guest Lecture on Soft Computing Applications
by Mr. V. Bharath

**Target Audience**:-II B.Tech CSE students.
**Topic**:- Soft computing Applications
**Date**:-07-10-2017
**Venue:-CSE** Seminar Hall
**Resource Person:**- V. Bharath, Associate Software Engineer, Infosys, Banglore

**Report** Submitted by Y. C. A. Padmanabha Reddy, Asst.Prof in CSE Dept.

Dr. Sakti Ganeshan, HOD inaugurated the program by introducing the Mr. C V. Bharath, Associate Software Engineer, Infosys, Banglore. Mr C. Vamshi Krishna explained about soft computing applications to the students.

**Soft computing** is the idea of computing like people because people and the world are soft. It was conceived by Lotfi Zadeh, pioneer of a mathematical concept known as fuzzy sets which led to many new fields such as fuzzy control systems, fuzzy graph theory, fuzzy systems, and so on. Zadeh observed that people are good at 'soft' thinking while computers typically are 'hard' thinking.People use concepts like 'some', 'most', or 'very' rather than 'hard' or precise concepts of 3.5 or 102. People want a 'warm' glass of milk, not one that is 102 degrees. In general, people are good at learning, finding patterns, adapting and are rather unpredictable. In 'hard' computing, by contrast, machines need precision, determinism and measures, and although pattern recognition happens, there is a 'brittleness' if things change - it cannot easily adapt. 'Soft' computing by contrast embraces chaotic, neural models of computing that are more pliable. Because there is no known single method that lets us compute like people, soft computing involves using a combination of methods that each bring something helpful to achieve this goal. The principal constituents of Soft Computing (SC) are Fuzzy Logic (FL), Evolutionary Computation (EC), Machine Learning (ML) and Probabilistic Reasoning (PR), with the latter subsuming belief networks and parts of learning theory.

Soft Computing became a formal area of study in Computer Science in the early 1990s. Earlier computational approaches could model and precisely analyze only relatively simple systems. More complex systems arising in biology, medicine, the humanities, management sciences, and similar fields often remained intractable to conventional mathematical and analytical methods. However, it should be pointed out that complexity of systems is relative and that many conventional mathematical models have been very productive in spite of their complexity.

Soft computing deals with imprecision, uncertainty, partial truth, and approximation to achieve

computability, robustness and low solution cost. As such it forms the basis of a considerable amount of machine learning techniques. Recent trends tend to involve evolutionary and swarm intelligence based algorithms and bio-inspired computation.

(Y. C. A. Padmanabha Reddy)