9^{th} Session of Lecture Series on
Formal and Logical Aspects of Computer Science

Relation between the usual order and the enumeration orders of elements of r.e. sets

Farzad Didehvar

Amirkabir University of Technology

Time : Thursday, October 29, 2009 (Aban 7, 1388) 14:00 to 16:00

Place : School of Mathematics, IPM, Niavaran Square, Tehran, Iran

Abstract: In this seminar, we compare r.e. sets based on their enumeration orders with Turing machines. Accordingly, we define novel concept "uniformity" for Turing machines and r.e. sets and study some relationships between "uniformity" and both one-reducibility and Turing reducibility. Furthermore we define "type-2 uniformity" concept and study r.e. sets and Turing machines based on this concept. In the end, we introduce a new structure called "Turing Output Binary Search Tree" that helps us lighten some ideas.

(Note : Topics covered by this lecture series are computational logic, type theory, topology in theoretical computer science, proof carrying code, formal specification and verification of systems, computability, proof theory, model checking, and so on.)