

Malaviya National Institute of Technology Jaipur
GIAN (Global Initiative of Academic Networks)
Course on
The Science of Remulation for Executable Biology
(December 12-16, 2016)

	08:30 AM – 09:30 AM	09:30 AM – 11:00 AM	11:00 AM – 11:30 AM	11:30 AM – 01:00 PM	01:00 PM – 02:00 PM	02:00 PM – 03:30 PM	03:30 PM – 03:45 PM	03:45 PM – 05:15 PM
Monday Dec 12, 2016	Registration followed by Inauguration	Lecture 1	Tea/Coffee Break	Lecture 2	Lunch Break	Tutorial 1	Tea/ Coffee Break	Consultation
Tuesday Dec 13, 2016		Lecture 3		Lecture 4		Tutorial 2		Consultation
Wednesday Dec 14, 2016		Lecture 5		Lecture 6		Lab 1		Consultation
Thursday Dec 15, 2016		Lecture 7		Lecture 8		Tutorial 3		Tutorial-4
Friday Dec 16, 2016		Lecture 9		Evaluation		Valedictory and closing		

Speakers Dr. Parthasarathi Roop (PR), Dr. Avinash Malik (AM), Dr. Sidharta Andalam (SA)

Lecture 1 Introduction of Execution Biology (PR) Tutorial 1 -- Synchronous Approach
Lecture 2 Synchronous Approach (PR) Tutorial 2 -- Model Checking
Lecture 3 Introduction to Model Checking (PR) Tutorial 3 -- Hybrid Automata
Lecture 4 Pacemaker and Timed Automata (PR) Tutorial 4 -- LTL & SPIN
Lecture 5 Cardiac Cell Modelling (SA) Lab 1 -- Uppaal (Train Gate Controller)
Lecture 6 Heart Modelling (SA) Lab 2 -- Esterel
Lecture 7 Design of Executable Heart on a Chip (HoC) (AM)
Lecture 8 Validation of Executable HoC (AM)
Lecture 9 Conclusions & future directions (AM, PR, SA)

Venue:

For all lectures shall be NKN-II on 2nd floor of Prabha Bhawan.
Exercises shall be conducted in CCC-Lab 3 on Ist floor of Prabha Bhawan.