

Avinashi Road, Arasur, Coimbatore.

Phone: 0422-2635600 Web: kpriet.ac.in Social: kpriet.ac.in/social **CS036**

NBA Accredited (CSE, ECE, EEE, MECH, CIVIL)

REAL TIME APPLICATIONS OF COMPUTATIONAL THEORY

Event No	CS036			
Organizing Department	Computer Science and Engineering			
Date	13/02/2023			
Time	02:00 PM to 04:00 PM			
Event Type	Guest Lecture			
Event Level	Dept. Level			
Venue	II CSE B Classroom			
Total Participants	60			
Students - Internal	60			

Related SDG



Resource Persons

SI	Туре	Name	Designation	Company	Email	Phone
1	Resource Person	Ms Prathilothamai M	AP (Sr.G)	Amirtha Vishwa Vidyapeetham	prathimecse@gmail.com	xxxxxxxxx

Involved Staffs

SI	Name	Role
1	Senthil Prakash Pn	Coordinator
2	Nisha Soms	Coordinator
3	Janani M	Coordinator
4	Sasikala C	Coordinator

Outcome

Students grasp the real needs of Theory of Computation.

Event Summary

The theory of computation (TOC) mainly comprises Computability Theory, Automata Theory, and Complexity Theory. Computability theory is the branch of the theory of computation that studies which problems are computationally solvable using different models of computation. A central question of computer science is to address the limits of computing devices by understanding the problems we can use computers to solve. Computability theory concerns what can be computed versus what cannot, and complexity concerns the resources required to compute the computable things. Automata theory deals with designing abstract computing devices to develop methods to describe and analyze the dynamic behaviour of discrete systems. It is an exciting, theoretical branch of computer science. The formality of automata theory can be applied to analysing and manipulating actual human language and developing human-computer interaction (HCI) and artificial intelligence (AI). It is a computer science branch which deals with how a problem can be solved efficiently by using an algorithm on a model of computation.

Applications of Theory of computation

- 1. Traffic lights.
- 2. Lifts and elevators.
- 3. Marketing.
- 4. Compilers.
- 5. Cloud computing.

Theory of Computation has helped in many fields such as Cryptography, Design and Analysis of Algorithms, Quantum Calculation, Logic within Computer Science, Computational Difficulty, Randomness within Calculation and Correcting Errors in Codes. The event was organized by course handling faculties of Theory of Computation to bring unite real-time applications to the course. TOC is a fully structured part of automata, regular expression, pumping lemma, closure properties, push-down automata, context-free grammar, and turning machine with NP hard and NP-Complete problems.

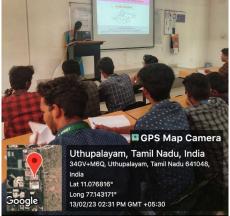




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