THE Impact Ranking 2021

SDG Curriculum Mapping

Course Title: Automata and Theory of Computation

Course Code: CSE 417

Faculty Name: Satyaki Das

**Learning Objectives mapping with SDG:**

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| Learning Objectives | Statement of the learning components | SDG Mapping | | |
| Goal | Target | Indicator |
| To provide a thorough understanding of Automata concepts and the resource requirements | SDG 4, SDG 9 |  |  |
| To introduce several important features of computational theory that are interesting both from a theoretical and also practical point of view | SDG 4, SDG 9 |  |  |
| To enable students in designing and solving problems using state machines | SDG 4, SDG 9 |  |  |
| To emphasize on various languages for designing and solving practical problems | SDG 4, SDG 9 |  |  |
| To expose the students on solving real world problems using relevant features of automata and formal languages approaches | SDG 4, SDG 9 |  |  |
| Content | Introduction to Automata and Theory of Computation | SDG 4 |  |  |
| Finite State Machines | SDG 4, SDG 9 |  |  |
| Regular Expressions | SDG 4 |  |  |
| Context Free Grammar | SDG 4 |  |  |
| Push Down Automata | SDG 4, SDG 9 |  |  |
| Turing Machine & Decidability | SDG 4, SDG 9 |  |  |
| Learning Activities | 1. Lectures, group discussion, studying published literature along with textbooks | SDG 4,  SDG 9 |  |  |