



MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY (Autonomous Institution – UGC, Govt. of India)

Sponsored by CMR Educational Society

(Affiliated to JNTU, Hyderabad, Approved by AICTE - Accredited by NBA & NAAC - „A“ Grade - ISO 9001:2015 Certified)
Maisammaguda, Dhulapally (Post Via Hakimpet), Secunderabad - 500100, Telangana State, India. Contact Number: 040-23792146/64634237, E-Mail ID: mrctet2004@gmail.com, website: www.mrcet.ac.in

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

INNOVATIVE CLASSROOM TEACHING

2023-24



JIGSAW

Department of Computer Science and Engineering

Name of the Activity: JIGSAW

Academic Year: 2023-24

Subject Name: Design and Analysis of Algorithms

Elliot Aronson and colleagues developed the Jigsaw technique, in the early 1970s, in order to reduce tensions and decrease competition in the classroom. The strategy encourages students to actively listen, engage with others and prompt students to practice their communication skills, teamwork skills and critical thinking skills. Jigsaw has also been shown to improve student autonomy, learning gains and retention of the material encountered. The results of study indicated that the use of jigsaw technique improves students' performance by 15% and helps them in developing their lifelong learning skills.

Of these, the most widely used puzzle is arguably the Tower-of-Hanoi problem. It provides a natural and convenient vehicle for illustrating the idea of a recursive algorithm, for showing how a recursive algorithm can be analyzed by setting up and solving a recurrence relation, and even for proving an algorithm's optimality. Other standard examples include the Königsberg bridge puzzle (to introduce Euler circuits), mazes (in conjunction with depth-first search), and the n-queens problem (for illustration of backtracking).

The class is divided into 5 groups where each group consists of 4 to 5 students. The groups are explained with the problem. Each group has an expert who coordinates with other group members and solves a problem.

Examples of problems solved are:

1. 15 puzzle problem
2. DAA crossword
3. N-Queens problem.

Course outcomes:

1. To improve problem solving skills and logical understanding of problem.
2. To understand the problem and its constraints.
3. To apply the techniques to various real time problems.

Details of Activity:

Sl.No.	Class	Section	Faculty	Date
1	II/I	A	Mrs.Honey	25/09/23
2	II/I	B	Mrs.Sujatha	29/09/23
3	II/I	C	Mr.Sandeep	27/09/23
4	II/I	D	Mr.Manoj	26/09/23



