

ICPC International Collegiate Programming Contest // 2024-2025 The 2024 ICPC Asia Amritapuri Multisite Regional Contest



Report from the Contest Director

The Amritapuri Site Contest 2024, India's largest site, was conducted as a <u>multi-site event</u> at <u>Amrita University</u>'s three distinct locations (Amritapuri, Bengaluru, and Ettimadai). The contest brought together some of the brightest computer science minds from across the country to celebrate programming excellence. This prestigious event showcased the incredible talent, teamwork, and problem-solving abilities of participants as they tackled a series of challenging problems designed to push their skills to the limit. Amrita University is honored to have hosted this contest for the **eighteenth** consecutive year.

The journey toward the onsite competition began with a preliminary online contest held on **16 November 2024**. In an effort to boost participation, the organizing team reached out to prospective contestants by phone, which led to an increase in registration from 1200 to **2098** teams specifically for the Amrita Site. Across all three sites, the total number of registered teams exceeded 3000. For this preliminary round, a neutral platform, DOMJudge, was selected to ensure fairness. A neutral platform (DOMJudge) was chosen for the contest. Although it had been tested beforehand, it experienced unexpected load issues in the final 30 minutes, which affected the fairness of the first online contest. To address these issues, we decided to hold a re-contest on 23 November 2024 using CodeChef, a proven and reliable platform that provided a more transparent competition environment.

Nevertheless, the tight schedule for problem setting introduced other issues. One of the problems, titled "Yet Another GCD Problem," was found to have flawed test cases, necessitating a rejudging process in which these problematic test cases were removed, and the penalties were recalculated based on each team's first accepted solution. Another problem, "Small Indices," was deemed unsuitable for evaluation and was removed entirely. As a result, two **distinct** rank lists were generated—one reflecting the rejudged solutions and another excluding "Small Indices." In the interest of maintaining fairness, the top teams from both lists advanced to the onsite round. This decision pushed the number of onsite slots from 220 to **268**, ensuring that no deserving team was left behind.

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The onsite round, held on **28-29 December 2024**, hosted the highest-scoring teams from across India. A total of **225** teams, representing **120** different institutions, participated in this esteemed event. The contest featured 12 challenging problems, and **215** teams successfully solved at least two problems, demonstrating their remarkable skill and dedication. The **balloons** at each team's station provided a visually appealing display and represented the different stages of the contest, which motivated teams to either solve more problems or better understand which problems to prioritize, keeping with **ICPC traditions**.

The champion team, **Ice Shard** from the **Chennai Mathematical Institute**, correctly solved an impressive 10 problems. The first runner-up, **on_the_spectrum** from the **Indian Institute of Technology - Delhi**, also correctly solved 10 problems but incurred a higher penalty. Similarly, the second runner-up, **404_solution_not_found** from the **Indian Institute of Technology - Indore**, correctly solved 9 problems. These results highlight the caliber of the participants and the high standards of the competition.

Some observations regarding this contest:

- The contest consisted of 12 problems, with 217 teams solving at least 1 problem and 10 problems solved during the contest.
- The contest started at 9:03 am and ended sharply at 2:03 pm.
- 95% of teams attended practice contests, showing dedication and allowing for early identification of issues, allowing for a smooth contest.
- The distribution of team performance demonstrates the well-balanced nature of the problem set as shown below.

Problems Solved	Number of Teams
4	205
5	164
6	129
7	54
8	29
9	13
10	2

The success of ICPC Asia Region Amritapuri Site 2024 was made possible by the unwavering support of our sponsors and the dedicated efforts of the Amrita University administration. Their outstanding infrastructure and meticulous planning ensured the smooth execution of the event. We are deeply grateful to <u>Sri</u> <u>Mata Amritanandamayi Devi</u>, Chancellor of Amrita University, for her motivation, support, and necessary permissions.

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We would also like to thank the problem setters and judges, for a well balanced problem set and an exciting contest. We extend our sincere appreciation to the coaches, contestants, volunteers, and organizing committee members for their dedication and hard work.

I also extend my sincere gratitude to **Prof. C. J. Hwang**, Director, Asia Region, and **Prof. Phalguni Gupta**, Associate Director, Asia West Continent, for their invaluable guidance and encouragement throughout the contest. In conducting this contest, Amrita University has reaffirmed the ICPC mission of nurturing creativity, collaboration, and outstanding skill in the discipline of computer science and engineering. Looking ahead, Amrita is committed to continuing this tradition by regularly hosting competitions, cultivating a robust competitive programming community, and improving platforms that can facilitate training and future events. Such a commitment reflects the university's dedication to inspiring and empowering future generations of problem solvers both in India and beyond.

Vipin Pavitran Regional Contest Director ICPC Amritapuri Site







