



acm International Collegiate
Programming Contest

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Amrita University - Amritapuri - Bengaluru - Coimbatore

ACM ICPC 2013 Asia

Amritapuri Site Regional

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Chancellor's Message

Through this holding of hands and sharing of knowledge and experience, new horizons of knowledge will open in the highest realms of science and technology to those thirsting for knowledge in India and others parts of the world especially to students, teachers and researchers. "Today, we are witnessing the world becoming like a single village. This is due to the efforts nations are putting towards cooperating in all fields. Thus, they are becoming like one. This venture to collaborate and share knowledge is a gigantic step in this direction. "Knowledge is like a river-its nature is to flow. The dharma of knowledge is to flow to all corners of the world and nourish the culture there.

We should never stem its flow and thereby turn it into a stagnant pond." It is said that knowledge is the greatest gift one can give, for knowledge is imperishable. Even if we light a thousand lamps from one flame, the lustre of the first lamp never diminishes. Similar is the greatness of knowledge. Knowledge does not diminish, no matter how much it is shared. In fact, the more you give, the more it develops and expands. "By sharing knowledge and experiences, we can prevent the flower that is this world from ever wilting and ensure that it remains eternally beautiful. By bringing together diverse streams of knowledge, we can create a magnificent river. May this great river of knowledge flow to caress the countries and communities of the world. May it overflow the borders between people and countries. May it impart the water of life to all of humanity, and thus nature the blooming of culture throughout the world."

---Sri Mata Amritanandamayi Devi
Chancellor, Amrita Vishwa Vidyapeetham

Greetings from Vice Chancellor & Regional Contest Director

It is with immense pleasure that we host the ACM ICPC Regionals – Asia, here at Amrita Vishwa Vidyapeetham. We extend our hearty welcome to all the participants to our campus. Drawing its inspiration, guidance nourishment, energy, and resources directly from our Chancellor and world renowned humanitarian leader, Sri Mata Amritanandamayi Devi (AMMA), Amrita University has now grown into a dynamic, 5-campus, multi-disciplinary University with over 15 schools, 100 academic programs (undergraduate, postgraduate, and doctoral), 1500 faculty, and 14000 students, all united in their mission towards solving the monumental scientific and societal challenges being faced by the world today. The campus you see here is both young and immensely dynamic, with a unique holistic approach to produce the best engineers, scientists, healthcare professionals, entrepreneurs, managers, and societal contributors in all of its disciplines. We hope you all get the opportunity to feel this experience during your stay here. Many congratulations to the Amrita ICPC team for organizing this prestigious event here at Amrita.

P. Venkat Rangan,
Vice Chancellor, Amrita Vishwa Vidyapeetham
Regional Contest Director, Asia-Amritapuri Site



About Amrita Vishwa Vidyapeetham

Amrita Vishwa Vidyapeetham is one of the youngest group of higher educational institutions in India to be conferred the "University" status under "Section 3 of UGC Act 1956" by the Government of India in 2003 and the first to have a multi-disciplinary, multi-campus set-up at the outset. With headquarters at Coimbatore and campuses also at Amritapuri, Kochi, Bangalore and Mysore, Amrita University is emerging as one of the fastest growing institutions of higher learning in the country. Amrita Vishwa Vidyapeetham is managed by Mata Amritanandamayi Math with Satguru Sri Mata Amritanandamayi Devi (AMMA), one of the foremost humanitarian leaders in the world today, as the Chancellor. The university offers high-quality undergraduate, postgraduate and doctoral programmes in Engineering, Business, Medicine, Dentistry, Pharmacy, Nursing, Journalism, Biotechnology, Arts and Sciences, Health Sciences, Education, Microbiology, Hospital Management, Communication & Visual Media Studies and Ayurveda. Based on the evaluation of all the campuses and programmes by a peer review committee, the University has been accredited by National Assessment and Accreditation Council (NAAC) with 'A' grade. AMRITA started off towards the end of 1994, as a School of Engineering in an obscure village called Ettimadai, at the foothills of Bouluvanpatty ranges of the Western Ghats in Coimbatore district of Tamil Nadu, with 120 students and 13 faculty members. Today, AMRITA has a student population of over 14,000 and faculty strength of 1500, conducting over 120 UG, PG and Doctoral programmes. The University today is having a total land area of over 600 acres and built-up space of about 7 million square feet. Research is a very significant activity in the University. Several centers of excellence and research in cutting edge areas like Nanosciences, Biotechnology, Molecular Medicine, Cyber Security, Computational Engineering, Environmental Sciences etc. have been set up with the support of various government agencies like TIFAC, DBT, DST, ISRO, DRDO, BARC etc as well as industry leaders like Microsoft, TCS, HP etc. AMRITA has attracted grants from various Governmental and private funding agencies to the tune of more than Rs. 75 crores in the past five years. AMRITA has bagged fourteen major patents and inventions in the past few years which include Adaptive and Automatic Insulin Pump, Wireless Telematics, Virtual Private Network (VPN), Amrita Hospital Information System (AHIS) etc. Plans are afoot to manufacture the Insulin Pump commercially and market it at an affordable cost. The 1450 bed super-specialty hospital, Amrita Institute of Medical Sciences (AIMS) attached to Amrita School of Medicine at the Health sciences campus at Kochi, is a unique model of state-of-the-art facilities offering subsidized and free treatment to the tune of Rs. 25 crores per year to poor and needy patients. The super-specialty hospital is offering telemedicine services to various remote parts of the country through the ISRO satellite link. AIMS are also accredited with ISO 9002-2000, NABH and NABL, with AMRITA being the only university hospital in India to secure NABH accreditation.

All the students of Amrita University have ample opportunities for orientation in Yoga, Meditation and Cultural Education. Integrated Amrita Meditation (IAM) technique helps them achieve holistic development of mind and body. The students have also demonstrated their social commitment and community engagement by participating in disaster relief and rehabilitation activities after the Gujarat Earthquake in 2001; Tsunami relief operations in Tamil Nadu and Kerala in 2005-2006 and flood relief operations in Bihar in 2009.



Amrita University, Amritapuri Campus



Nestled in the picturesque village of Vallikavu, across the beautiful and famed backwaters of Kerala, is Amrita Vishwa Vidyapeetham's Amritapuri campus, blending into the natural setting of the environment with its endless stretches of coconut palm groves. The Arabian Sea that borders Kerala on the west is only a few hundred meters from the campus.

Amritapuri Campus Located close to the international headquarters of the Mata Amritanandamayi Math, the campus provides a learning environment that harmoniously blends science and spirituality. Students have a unique opportunity to nurture values and self-discipline. Over 90% of the students reside in hostels on campus.

Attracted by its pristine beauty and the campus's emphasis on technical excellence, students are drawn from just around the corner as well as from far across the globe. Eminent academicians and corporate professionals from share their knowledge and experiences with the students and help them apply their theoretical knowledge to real-life projects. Academic counselors mentor the students, acting as their friend, philosopher and guide.

All Schools and Research Centers on campus are committed to generating, disseminating and preserving knowledge. They seek to develop in each member of the campus, the ability and passion to work wisely, creatively and effectively for the betterment of humanity. Numerous seminars, discussions and debates help enhance the quest for knowledge.

Amritapuri Campus Although located in a remote village blessed with panoramic backwater expanses and tiny glistening brooks on the one side and the mighty sea on the other side, all modern amenities which go to make campus life memorable, are provided.

There is a well-stocked library, cafeterias and sports facilities. A culture of enthusiastically celebrating festivals and other events makes life on campus stimulating.

Amrita University, Bengaluru Campus



The Amrita School of Engineering, Bengaluru offers B.Tech. programs in six disciplines and M.Tech. programs in two disciplines.

The school seeks to prepare graduates with a solution-mindset and with a high degree of ethical standards. Recruiters from the best companies and institutes in India and abroad seek out these students.



Curriculum is framed with extensive industry input. All programs are credit-based.

Departments are equipped with modern laboratories, design tools and software packages.

Emphasis is laid on continuous evaluation of students. Faculty serve as class advisors and mentors to students.

The school has a faculty strength of nearly one hundred and fifty. Several faculty have come to Amrita with rich experience from leading organizations and universities.

The school traces its roots to the Amrita Institute of Technology & Science that was started in 2002 with a vision to produce quality engineers with an attitude of service, for the benefit of the society and nation.

Affiliated then to the Visveswaraiah Technological University, Belgaum, the school is today one of the fifteen constituent schools of Amrita Vishwa Vidyapeetham as per Section 3 of UGC Act, 1956 .

Highly-qualified and experienced faculty members, state-of-the-art facilities and the extensive industry-academia interaction all serve to make engineering education at Amrita's Bengaluru campus a unique and enriching experience.

Amrita University Campus, Ettimadai, Coimbatore

When Amrita became a university in January 2003, it was the youngest group of institutions to be conferred this status. As Amrita's first campus, Coimbatore is home to the administrative headquarters of Amrita University.



Schools of Engineering and Business in addition to Departments of Social Work and Communication are located on located on this campus. Research centers include AMBE, CEN, CES and Cyber Security. The campus has nearly 3500

students and about 600 faculty and staff members.

This sprawling 400-acre campus is often likened to an oasis in a desert. Massive tree-planting and forestation activities undertaken over the past decade have converted the once-barren land into a lush green and beautiful place.

A lot of emphasis is placed on eco-friendly and conservation practices. Waste water from the hostels and faculty and staff quarters is treated using EM; no chemicals are used in the process. Organic fertilizers are made using vermi-compost, pesticides have been avoided since the very beginning. The tranquil surroundings, away from the pollution and the bustle of city life, are home to several exotic birds, including parrots and peacocks.



International Alliances

Indo-US Initiatives

A Memorandum of Understanding was signed in 2005 between AMRITA and various US Universities, some of which are ranked among the best universities in the world, like Harvard, Purdue, State University of New York (SUNY) at Buffalo, Yale, Princeton, Columbia, Berkeley, Michigan, Maryland, University of California etc. for faculty and student exchange, collaborative programmes, research and cross-continental projects, centres of excellence and broadcast of distinguished lectures using EDUSAT to around 50 institutions and universities in the country. In the last four years, there have been 15 full-fledged courses, 7 research projects, numerous short-term courses and over 500 distinguished visitors. Indo-European Initiatives AMRITA has also completed a major European Commission funded project in Wireless Sensors Networks for landslide detection. This project is between nine European Universities and research centres, AMRITA and Antrix Corporation, the commercial wing of ISRO being the organizations from the Indian side. AMRITA also has joint research projects, collaborative programmes and tie-ups with University of Milan, University of Twente, Technical University of Munich, University of Groningen, Uppsala University etc. Extensive faculty and student exchange programmes through Erasmus Mundus programme of the European Commission is also underway with 40 students and 10 faculty members from AMRITA deputed to various European universities in United Kingdom, Ireland, Italy, Sweden, Germany, Finland, Bulgaria and Netherlands for academic and research assignments.

Virtual Campus

Amrita Vishwa Vidyapeetham has the unique distinction of being the nation's first of its kind – fully interactive, multi-disciplinary, multi-media, virtual campus without geographical limitations linking all its campuses. The satellite network for education and research that links all the campuses of the university has facilitated leading experts to have academic interaction Live from a single Centre to students, academicians and researchers at other campuses, done through a state-of-the-art e-learning studio. The facility is equipped with 6 simultaneous synchronous LCD panels, 130 seats for classroom instruction 24 hours a day, 7 days a week using the dedicated satellite link with a bandwidth of 1.5 Mbps. This studio and e-classroom is the front-end of the high bandwidth satellite network, which has made Amrita University a fully interactive, multimedia capable, multi-disciplinary virtual university – the first of its kind in the nation. It will enable interactive class room sessions across all 4 campuses of the University.

Amrita Virtual Interactive E-Learning World (A-View platform)

A-View is Amrita's indigenously built e-learning platform that makes for an immersive e-learning experience that is almost as good as a real classroom experience. Providing multi-modal student-teacher interaction on a four screen display, students can simultaneously view the teacher video, the whiteboard, share live documents and participate in a common chat with logged-in users. A-View is now deployed not only at Amrita but also at several IITs



and NITs and other leading educational institutions in the nation.

Industry-Academia Interaction

With a view to foster the employability of engineering graduates, Amrita Vishwa Vidyapeetham has entered into a number of Memoranda of Understanding with various companies and organizations. Setting up of Embedded Systems laboratory by Microsoft; Best Student and Project Awards and institution of German Language Chair by Tata Consultancy Services (TCS) and Infosys Campus Connect programme for foundation training programmes are some examples of corporate involvement for elevating the process of learning at AMRITA. Memoranda of Understanding with National Aerospace Laboratories (NAL), TCS and Infosys have been signed in this direction. Organizations like L&T, honeywell, Caterpillar, Microsoft, NAL, ISRO, Cognizant, HCL, Hewlett Packard etc have been regularly offering internships for our students. Various companies are also offering Faculty Development Programmes (FDP) for the benefit of the faculty members

Research @ Amrita

Amrita WNA (Amrita Centre For Wireless Networks and Applications)

Known for its successful completion of the Indo-European WINSOC Project, Amrita WNA is recognized worldwide today for its deployment of the first-ever wireless sensor network system for monitoring and detecting landslides. The system uses wireless sensor technology to provide advance warning of an impending landslide disaster, facilitating evacuation and disaster management. The Government of India has shown interest to deploy this system in all landslide prone areas including the Himalayas and the Konkan Region. Primary areas of research at the Center include Disaster Management, Context Aware Application Development, Wireless Sensor Networks for Real-Time Landslide Monitoring, Wireless Smart Grid, Wireless Surveillance, Wireless Network for Medical Applications, Wireless Sensor Network for Avalanche Detection, Wireless Sensor Network for Under Water Sensors, and Wireless Robotics. Center also runs a post graduate program MTech in Wireless Networks.

AMMACHI Labs (Amrita Multi Modal Applications Using Computer Human Interaction)

Amrita University's AMMACHI Labs is a center of technological innovation breaking new ground in the field of computer-human interaction, developing applications designed to improve quality of life for the least fortunate among us. SAVE, Sakshat Amrita Vocational Education, a project of Ammachi labs, has created government certified innovative multimedia enriched computerized vocational training modules that will be used to teach the underprivileged segments of society. Custom designed, low cost haptic devices to replace expensive heavy-duty tools, materials and machinery. AMMACHI labs aims to build training modules that will prepare individuals and communities for disasters that are relative to their environment and climate hence making serious efforts to contribute to disaster risk reduction and rehabilitation. The mobile units are being designed to reach communities and



villages that have no access to community centers and are located in very remote areas, so this kind of training would be available to them for the first time

Computational Neuroscience lab

The lab works on the cutting edge area of Computational neuroscience which seems to face an interesting paradox now. Recent developments at the lab were presented at the Bernstein conference held at University of Freiburg in Germany from Oct 4-6, 2011. The work was titled "Information processing in the cerebellum granular layer and changes in plasticity revealing single neuron effects in neural ensembles". A book on Computational Neuroscience titled "Computational Neuroscience of Granule Neurons: Biophysical modeling of single neuron and network functions of the cerebellum granular layer" authored by Dr. Shyam Divakar was published by Lambert Academic Publishing, Germany. The book uses computational modeling to analyze neuronal processing to determine the possible role and function of a neuron in a particular neural.

Virtual Labs

Virtual labs at Amrita undergoes research projects under the initiative of Ministry of Human Resource Department under National Mission on Education through ICT. The projects aim at providing remote-access to Labs in various disciplines of Science and Engineering which cater to students at the undergraduate level, post graduate level as well as to research scholars, provide a complete Learning Management System around the Virtual Labs where the students can avail the various tools for learning, including additional web-resources, video-lectures, animated demonstrations and self-evaluation, share costly equipment and resources which are otherwise available to limited number of users due to constraints on time and geographical distances. The lab at-the-best, provide an approximate version of the 'real-world' experiment by modeling the physical phenomenon by a set of equations and carrying out simulations to yield the result of the particular experiment. The lab covers the broad areas of Electronics & Communications, Computer Science & Engineering, Electrical Engineering, Mechanical Engineering, Chemical Engineering, Biotechnology Engineering, Civil Engineering, Physical Sciences, Chemical Sciences.

Amrita Technology Business Incubator

Amrita Technology Business Incubator is a joint initiative by Amrita Vishwa Vidyapeetham University and Department of Science and Technology. Amrita TBI is one of the 40 TBIs across India which is supported by Department of Science and Technology (DST) & NSTEDB. The Mission is "To encourage the spirit of innovation and entrepreneurship for creating sustainable business ventures that contribute to the overall welfare of the society." Amrita TBI is focused on helping incubatees work on intellectually stimulating and socially responsible projects to make a powerful and positive impact in society. Exposing the youth to today's global challenges, Amrita TBI offers them hands-on opportunities to find the solutions, there by instilling the spirit of Entrepreneurship. With workshops, Innovation contests, business plan competition and interactions with entrepreneurs, Amrita TBI perseveres to light the spark of creativity.



About ACM ICPC Asia Amritapuri Multisite About ACM Regional Contest

Amrita Schools of Engineering – Amritapuri, Bengaluru, Coimbatore

For the 8th year in a row, Amrita University is hosting the world's largest collegiate programming contest - ACM ICPC, Sponsored by IBM. Initially Amrita hosted this prestigious programming competition in its Ettimadai (Coimbatore) campus. In 2007, the contest was moved to Amritapuri (Kollam, Kerala) and now, after three years, it is being expanded to include Ettimadai (Coimbatore) campus again. The Asia-Amritapuri Site Regional Contest 2012 is scheduled on December 19-20. We have more than doubled the number of participants since last year. To encourage more and more young talented brains to participate in the contest in the future, we invited teams from more than 120 colleges and universities. More than 250 teams, from nearly 120 colleges and universities will compete in this year's battle of brains ACM ICPC from Amritapuri, Bengaluru and Coimbatore campuses of Amrita University. The Inaugural and Award Ceremony is to be synchronized using Amrita's AVIEW e-Learning software. This year, with the additional help and support of the software giants like Infosys and Directi, we are able to conduct this mega event concurrently in all the campuses. All the participants in all campuses are requested to attend all the sessions without fail. All the technical sessions will be streamed using the software so that the participants from all campuses can attend the ceremony. The main event in the whole programme after the contest is the Award Ceremony. This is also held simultaneously. There are technical sessions planned on December 20th after the contest, followed by the Awards Ceremony. Participants may contact the committee coordinators of respective campuses preferably by email for any queries and clarifications.

About ACM

ACM is an educational and scientific society uniting the world's computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking activities: ACM carries out its mission through conferences, publications, educational programs, public awareness activities, and special interest groups. It sponsors over 150 conferences annually, including conferences on computer graphics (SIGGRAPH); data communications (SIGCOMM); mobile computing (SIGMOBILE); knowledge discovery and data mining (KDD); software engineering (SIGSOFT); high performance computing (SC); human computer interaction (SIGCHI); object-oriented programming (OOPSLA); and freedom and privacy (CFP). Organization Structure: ACM's more than 96,000 members come from industry, academia and government institutions around the world. Through its membership, volunteers serve on various ACM boards, committees, and task forces that comprise ACM's governing structure.

About IBM



IBM believes intelligence will change more aspects of human life, including the way people live, work, and govern themselves; the way services are ordered and delivered; and the way air, water and forests are protected. The world is already connected economically, technically and socially. However, being connected alone is not sufficient. The world needs new generations of talent, problem solvers and leaders to infuse intelligence into our life such as power grids, transportation, and food safety. IBM is the world's largest information technology and service provider. IBM has 30,000 software engineers in more than 80 research and development laboratories around the globe, who focus on solving real-world business issues for customers in more than 170 countries. IBM offers software services and dynamic infrastructure for customers to manage their systems, processes and applications across standard platforms. IBM has customers in industries such as telecommunications, utility, retail, public service, health care, education, transportation, finance, insurance, petroleum, manufacturing, etc. IBM explores new services using technology such as Web 2.0, virtualization, social networking, RFID, and cloud computing for new enterprise data centers. For more information, visit <http://www.ibm.com/software>.

IBM's Commitment

IBM's sponsorship commitment to the ACM International Collegiate Programming Contest is part of a company-wide effort to advance the next generation of technology leaders and problem solvers who have combined skills of computing science and business management. For more information, visit <http://www.ibm.com/university/acmcontest/>.

Regional Contest Sponsors

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Infosys

Infosys Technologies Ltd. (NASDAQ: INFY) was started in 1981 by seven people with US\$ 250. Today, it is a global leader in the “next generation” of IT and consulting with revenues of US\$ 5.4 billion as on Sep2010. Infosys defines, designs and delivers technology-enabled business solutions that help

Global 2000 companies win in a Flat World. Infosys also provides a complete range of services by leveraging its domain and business expertise and strategic alliances with leading technology providers. Infosys’ offerings span business and technology consulting, application services, systems integration, product engineering, custom software development, maintenance, reengineering, independent testing and validation services, IT infrastructure services and business process outsourcing. Infosys pioneered the Global Delivery Model (GDM), which emerged as a disruptive force in the industry, leading to the rise of offshore outsourcing. Infosys has consistently been honored by customers, industry bodies, media and other influencers. Most recently, Infosys was ranked among the top 50 most respected companies in the world by Reputation Institute’s Global Reputation Pulse 2009 and has been voted the ‘Most Admired Indian Company’ in The Wall Street Journal Asia 200 for 10 years in a row since 2000. Infosys has a global footprint with 63 offices and development centers in India, China, Australia, the Czech Republic, Poland, the UK, Canada and Japan.

For more details, please visit: <http://www.infosys.com/pages/index.aspx>

Education & Research (E&R): The innovation hub of Infosys, the Education & Research department is one of the key business enabling resource centers, facilitating the company’s growth by creating, managing and sustaining the infrastructure for learning and knowledge sharing in the company, including courseware, library services, intranet based learning and online services. E&R conducts technical and project management related education programs for both in-house as well as strategic customers of Infosys and also conducts research that leads to technology assimilation and process improvement. E&R is the largest corporate ‘technical university’ in Asia, with state-of-the-art technology, training about 30,000 new joinees on an average every year.

Campus Connect (CC): Campus Connect is a strategic arm of the Infosys Education and Research division. Launched by Infosys in May 2004, CC is a unique industry-academia partnership program aimed at deepening the industry-academia bonds and building a strong foundation for the future needs of both academia and the growing IT industry by ‘architecting the education experience’. The nationwide initiative, now global and in its sixth year, focuses on creating industry-ready IT professionals, by aligning engineering talent with the needs of the industry. As of August 2010, CC has partnered with 395 colleges. CC is also building a sustainable partnership with policy making bodies and engineering education institutions in India and abroad for mutual benefit by enhancing the curriculum to include industry-centric courses. For more details, please visit: <https://campusconnect.infosys.com/login.aspx>



About HackerRank:

HackerRank is a free platform for problem solvers of all kinds to hone their coding skills and increase mental flexibility with programming challenges.

HackerRank founders Vivek Ravisankar and Hari Karunanidhi met while attending university at NIT, Trichy. They founded HackerRank to effect positive change in the global tech community by providing opportunities for programmers and hackers to learn, compete, and connect.

HackerRank's users are a diverse group with varying skill levels, nationalities, academic credentials and employment backgrounds. Founded in 2012, HackerRank has experienced quick growth and offers three hackathons per month on average: the 20/20 Hack (originally twenty days long but since shortened to nine days in duration) and the 101 Hack (named after the Highway 101 that runs along the West Coast of the United States). These two are supplemented with periodic hackathons by leading tech companies which co-host challenges on the HackerRank platform.

Offering one of the best user experiences on the web for programmers is one of HackerRank's primary priorities, and augmenting the feature-set with additional functionality that enables programmers to learn while having fun is the ultimate goal.

About Directi

- Established in 1998
- Valued at 300+ million dollars
- 750+ employees
- 25+ Internet Software Products for a Global audience
- 1,000,000+ Customers and 50,000+ channel partners (growing at >120% p.a.)

Directi (<http://www.directi.com>) is a \$300+ million group of **Businesses**, that develops innovative mass-market **Web Products** for millions of Customers worldwide.

Directi has actively involved itself in various Educational Initiatives. Some of these include:

- Directi **Go for Gold** Project – Aims to turn the best programmers in India into the best programmers in the world.
- Directi Case Study Competition
- Courses on Online Marketing in B-Schools
- **CodeChef** – Aimed at nurturing the programming talent in India, CodeChef is India's Largest Programming Platform. Since it's inception, CodeChef has evolved as a global community for budding programmers to meet, discuss and compete with fellow programmers from across the globe. The monthly **contests** organized by CodeChef see participation by thousands of young programmers from various institutes across the world, along with professionals from different leading firms. CodeChef intends to



better the programming culture across the nation and has been taking necessary steps in that direction.

- **CodeChef for Schools** - As an attempt to nurture the aspiring programmers from an early age, Directi has extended its reach to schools through their CodeChef For School program. With it, Directi intends to take computer programming to schools, to incorporate a programming culture among the students early in their career. Still in its early days, CodeChef For School has been getting great support from the programming fraternity by means of senior programmers and professors joining hands with CodeChef volunteers for the initiative and others helping in their various other ways.

CONTEST SCHEDULE

17 th December	12:30 to 14:00 14:00 to 17:30 Early Registration 16:00 to 17:00 Tea & Snacks
18 th December	07:00 to 08:30 Breakfast 09:30 to 10:30 Inaugural Ceremony 10:30 to 11:00 Tea 11:00 to 12:30 Practice Session 12:30 to 14:00 Lunch 02:00 to 05:00 Outdoor Entertainment 07:00 to 08:30 Banquet Dinner
19 th December	07:00 to 08:30 Breakfast 08:45 – Teams enter Contest Arena 09:00 to 14:00 ACM ICPC 2013 Asia Amritapuri Regional 12:30 to 15:00 Lunch 15:30 to 17:00 Talks, Problem discussion by Judges 17:00 to 18:00 Award Ceremony 19:30 to 21:00 Dinner
20 th December	Excursion

Guidelines and Instructions for the Onsite Contestants

1. Teams may use 25 pages (or 12.5 double-sided sheets) of their own reference materials in the contest arena. The team must submit this material as 25 pages hard copy, labeled with the team and institution name. Print out of this material is kept near the team workstation during the main contest. Teams are allowed to bring dictionaries to the contest arena, but that should be submitted along with the reference material during Onsite Registration.
2. The team shall be present in the Contest Arena before the contest begins (08:45 AM).



3. Contestants **are not** allowed to bring any machine-readable versions of software or data to the Contest Arena. Contestants are not allowed to bring any type of gadgets / electronic equipment to Contest Arena. It is the intent that contestants enter the Contest Arena, clothed with no carry-ins except personalization items such as hats, stuffed mascots, and such. They should wear the ACM ICPC T-Shirt to enter the contest arena.
4. Each team will have a single workstation to work and submit the solutions.
5. Upon entering the contest arena, do not touch the work station or other facilities provided in the contest environment. Wait for instructions from the Contest Manager.
6. Team will be provided with the following items at the contest arena:
 - Teams' 25 page reference material submitted at the time of Registration.
 - Printout of contest problem set (3 copies).
 - Login credentials of the work station and contest server.
 - Rough paper and pen.
7. During the contest, the contestants shall make the clarification requests on the problem statements through the contest software only. The clarification request must exactly identify the part of the problem statement that the team considers ambiguous, together with the possible interpretations. The Jury encourages contestants to use the sample input and output for resolving (apparent) ambiguities.
8. A contestant may submit a claim of ambiguity or error in a problem statement by submitting a clarification request to a judge. If the judges agree that an ambiguity or error exists, a clarification will be issued to all contestants. Any needs or queries related to contest arena may be asked of the lab volunteers (Interaction with the volunteers must be minimum). When the Jury responds to the clarification request, the team receives its "Clarification Request" with the answer. If the clarification request is incorrect or the answer is clear from the problem description, the Jury answers "No comments". If the Jury agrees that there is an ambiguity or error in the problem statement, a clarification will be issued to all teams. During the contest, teams solve the posed problems. A solution is a program (single source file, not executable) on one of the allowed programming languages. Different problems may be solved using different programming languages.
9. Keep all discussions within the team. Communication between teams is **NOT** permitted during the contest. Only one member from team is permitted to go out of the contest arena at any given time.
10. Documentation for STL and Java will be made available at the workstation.
11. While the contest is scheduled for five hours, the Jury has the authority to alter the length of the contest in the event of unforeseen difficulties. Should the contest duration be altered, every attempt will be made to notify contestants in a timely and uniform manner.



12. A team may be disqualified by the Regional Contest Director for any activity that jeopardizes the contest such as dislodging extension cords, unauthorized modification of contest materials, or distracting behavior.
13. At least eleven problems are posed, to be solved in 5 hours duration.
14. Solutions are submitted for judging during the contest using the contest software. Solutions to problems that were submitted for judging are called runs. Immediately after submission of any run, the team may continue to work on other problems. **A minimum time of 2 minutes between submission runs will be enforced.**
15. **Runs are NOT allowed to:**
 - o access the network;
 - o work with any files except those explicitly specified in the problem statement;
 - o attack system security;
 - o execute other programs and create new processes;
 - o change file system permissions;
 - o work with sub directories;
 - o create or manipulate any GUI items (windows, dialog boxes, etc);
 - o work with external devices (sound, printer, etc);
 - o do anything else that can stir up the evaluating process and the contest.
16. All submissions are open to scrutiny by anyone – in fact, we may publish all submissions on our website, where anyone may access them.
17. The solutions are run against multiple test cases and the first non-accepted verdict is displayed.
18. **Run Evaluation:** Each run is judged as accepted or rejected.
 - o The run is evaluated by executing it on a secret set of tests, common for all teams. A run is accepted, only if it gives correct answers to all tests.
 - o Evaluation is performed automatically, that is why a program should respect formats of input and output files described in the problem statement. If not explicitly stated otherwise, all input data are considered to be correct and satisfying all restrictions from the problem statement.
19. The time limit is the maximum execution time for the set of test.
20. Judging is automated, however, there is a chance that the judges may change the verdict and notified to the contestants.
21. The memory limit is the maximum amount of memory that a run may utilize.

The possible outcomes are listed in the following table

Outcome	Comment	Possible causes
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Compilation error	Executable file was not created after compilation.	Syntax error in the program; Wrong language specified for the program; Most compiler error / warnings.
Time limit exceeded	The program exceeded the allowed time limit.	Inefficient solution.
Memory limit exceeded	The program exceeded the allowed memory limit.	Inefficient solution.
Security Violation	The program violates the contest rules.	Purposeful rules violation (the violating team is disqualified in this case).
Run time error	The program terminates with non-zero exit code.	Runtime error; 'return (non-zero)' statement in C/C++ main function; 'System.exit(non-zero)' statement in Java; Uncaught exception.
Presentation error	The contest software cannot check output because it does not match the appropriate format.	Output format is not correct; No output or wrong output file name.
Wrong answer	The answer is not correct.	The output of run is not the same as expected for some tests.
Accepted	Run is accepted.	The solution is correct.

Compile time error is not classified as error. It won't be penalized also.

The possible outcomes in the table are listed in their order of priority. For example, if run time error has occurred, then output is not checked.

Special Note: An invalid function is generated if main does not return 0, and this is considered an error. Invalid function may also be generated by contest software on other rare occasions as a catchall error when it does not quite know how to classify a submission with error.

Practice Contest

1. Practice contest aims to make contestant familiar with the contest software. This is not a contest to check the skill of contestants.
2. You can submit the solution more than once to learn more about the error status generated by the contest software.
3. Teams are provided with preinstalled set of Editors, debuggers, profiling tools that are uniform across all the workstations. The contestants should verify this during the practice contest. If the contestants needs any new editors or profiling tool they should inform the Contest Arena team after the practice contest, if it is possible to provide the new tool it will be provided



during the main contest. Check if all the software (Editor, debugger etc) that may be used during the contest is available in the computer allotted for the team.

4. Use the feedback form available to report about the changes required or issues faced.
5. Any data left on the workstation will be cleared after practice contest

ICPC Ranking Rules

1. The problem is considered solved by the team, if it is accepted by the contest software, not rejected by the Jury.
2. The time consumed for a solved problem is the time elapsed from the beginning of the contest to the submission of the first accepted run for this problem (in minutes) plus 20 minutes for every other run for this problem before the accepted one. For an unsolved problem no time consumed is computed.
3. The total time is the sum of the time consumed for each problem solved.
4. Teams are ranked according to the number of solved problems. Teams that solve the same number of problems are ranked by the least total time and, if need be, by the earliest time of submittal of the last accepted run.
5. Contestants and observers will see preliminary results of all teams during the contest. Contestants may see the results on their computers, observers - on the monitor outside the competition area.
6. According to the traditions of the competition, to encourage interest in the award ceremony, updating of the current information on results will be stopped 45 minutes before the end of the contest.

Complaints, Appeals, and Remedies

1. Judges' decisions are final.
2. The Jury is solely responsible for determining the correctness of runs. Its decisions are final and may not be appealed.
3. If irregularities or misconduct are observed during the contest, team members or coaches should bring them to the attention of the contest officials so that action may be taken as soon as possible.

Participating teams at Amritapuri Site

TEAM	COLLEGE
include-iiit.h	International Institute of Information Technology - Hyderabad
zombies	International Institute of Information Technology - Hyderabad
aamaadmicoders	Indian Institute of Information Technology & Management, Gwalior
AAS	International Institute of Information Technology - Hyderabad
aasthik	National Institute of Technology, Raipur
adhawks	Delhi Technological University
adroits	Veer mata Jijabai Technological Institute
alegan	Indian Institute of Information Technology & Management, Gwalior



algo-mates	The LNM Institute of Information Technology
algorhythm	Indian Institute of Technology - Bombay
algorithm-h	Indian Institute of Information Technology & Management, Gwalior
al-khwarizmi	International Institute of Information Technology - Hyderabad
angelfire	Indian Institute of Information Technology - Allahabad
anonymus-1	Indian Institute of Information Technology & Management, Gwalior
armaturersbvb	B.V. Bhoomaraddi College of Engineering & Technology, Hubli
bakthans-16	Amrita University
barney-1	Indian Institute of Information Technology - Allahabad
bazinga-1	International Institute of Information Technology - Hyderabad
bazinga42	Indian Institute of Technology - Guwahati
begin.code	Delhi Technological University
beginners-3	Indian Institute of Information Technology - Allahabad
bit-force	Indian Institute of Information Technology & Management, Gwalior
bitsplease	National Institute of Technology, Trichy
brute-force-2	Birla Institute of Technology, Mesra
cet-5	College of Engineering, Trivandrum
changing-minds	Birla Institute of Technology, Mesra
chaostheory	Birla Institute of Technology, Mesra
code-blazers	RMK Engineering College
code-breakerz	Sahrdaya College of Engineering & Technology
code-crakers	Sree Vidyanikethan Engineering College
code-shoc	Sree Vidyanikethan Engineering College
code-templars	Indian Institute of Technology - Bombay
code-breakers-2	Amrita School Of Engineering, Kollam
code-stack	National Institute of Technology, Rourkela
codechamps	Indian Institute of Technology - Bombay
codefathers-1	Indian Institute of Technology - Kharagpur
Codefreaks	Indian Institute of Technology - Bombay
codefreaks-2	The LNM Institute of Information Technology
Codehead	Indian Institute of Information Technology - Allahabad
code-it	Vishwakarma Institute of Technology
codeplay-1	Indian Institute of Information Technology - Allahabad
codered-2	International Institute of Information Technology - Hyderabad
Coders Reloaded	Indian Institute of Information Technology - Allahabad
codessjs	M S Ramaiah Institute of Technology, Bangalore
codetroll	National Institute of Technology, Raipur
codevolve	RMD Engineering College
codificadores	International Institute of Information Technology - Hyderabad
codrammar	Sona College of Technology, Salem



compilation-error	Netaji Subhas Institute of Technology, Delhi
countergambit	National Institute of Technology, Trichy
cypher-2	Indian Institute of Information Technology & Management, Gwalior
darkshadows-1	Birla Institute of Technology, Mesra
Death by DP	International Institute of Information Technology - Hyderabad
decoder-2	Indian Institute of Information Technology & Management, Gwalior
defraggers	International Institute of Information Technology - Hyderabad
deja-vu	International Institute of Information Technology - Hyderabad
deoxys	Jaypee University of Engineering and Technology, Guna
devil-may-code	Sahrdaya College of Engineering & Technology
dexters	Veer mata Jijabai Technological Institute
dihingites	Indian Institute of Technology - Guwahati
dirtybits-1	The LNM Institute of Information Technology
dnc	Delhi Technological University
dynamic-trio	Indian Institute of Information Technology - Allahabad
Dynamite	Indian Institute of Technology - Kharagpur
earlymen	International Institute of Information Technology - Hyderabad
elancer	Smt. Kashibai Navale College of Engineering
elixir-1	Indian Institute of Information Technology - Allahabad
encoderz	K.S. Rangasamy College of Technology
eulers	Yeshwantrao Chavan College of Engineering
excelsior-1	Indian Institute of Technology - Bombay
facemash	Birla Institute of Technology, Mesra
fingerprint	International Institute of Information Technology - Hyderabad
flying-machines	JNTUK University College of Engineering Vizianagaram
foo-1	Birla Institute of Technology, Mesra
forbidden404	Chennai Mathematical Institute
force-3	Madras Institute of Technology
fork-1	University Institute of Engineering and Technology, Panjab University
freethinkers	International Institute of Information Technology - Hyderabad
FTN	IIT-Delhi
geeks-2	St. Vincent Pallotti College of Engineering and Technology
google-1	Karpagam University
got-r00t	Amrita School Of Engineering, Kollam
hash-coders	Velammal Engineering College
holyvacaant-1	Netaji Subhas Institute of Technology, Delhi
Hubullu	Birla Institute of Technology, Mesra
iet5	Institute of Engineering & Technology - Devi Ahilya Univ.
ietdevils	Institute of Engineering & Technology - Devi Ahilya Univ.
Ignited Minds	Indian Institute of Information Technology - Allahabad



iiit-terminators	International Institute of Information Technology - Hyderabad
impulse-1	International Institute of Information Technology - Hyderabad
incredible-bathetics	Birla Institute of Technology, Mesra
infinitum-1	National Institute of Technology, Calicut
inquisitive	Indian Institute of Technology - Roorkee
intiith-3	Indian Institute of Technology - Hyderabad
intruders	Indian Institute of Technology - Mandi
invaders	Indian Institute of Information Technology - Allahabad
kingslayer-1	Delhi Technological University
knapsack	International Institute of Information Technology - Hyderabad
lannistors	Yeshwantrao Chavan College of Engineering
lesmiserables-1	National Institute of Technology, Trichy
levicoders	Birla Institute of Technology & Science, Pilani Campus
logismos	International Institute of Information Technology - Hyderabad
lousercaps	Mepco Schlenk Engineering College
madc0der5	International Institute of Information Technology - Hyderabad
mbc	Indian Institute of Information Technology - Allahabad
mcet-h84kerz	Mohandas College of Engineering and Technology
megaminds	Karpagam University
moduli	Delhi Technological University
myrmidons	Indian Institute of Information Technology - Allahabad
navdrishti	Jaypee University of Information Technology
nitc-rookies	National Institute of Technology, Calicut
nitkkrccoders	National Institute of Technology, Kurukshetra
npcomplete-1	Indian Institute of Technology - Kharagpur
ocean-race	Indian Institute of Information Technology & Management, Gwalior
parity-tigers	International Institute of Information Technology - Hyderabad
piedpiper	Indian Institute of Technology - Bombay
ping-timeout	Veeramata Jijabai Technological Institute
primes	Indian Institute of Technology - Guwahati
pro-edge	National Institute of Technology, Raipur
progteam	Smt. Kashibai Navale College of Engineering
Providence-1	IIIT Hyderabad
proxymorons	Indian Institute of Technology - Bombay
quintillion	Motilal Nehru National Institute of Technology - Allahabad
rad-1	SR Engineering College
randselect	Indian Institute of Technology - Kharagpur
ray-1	Indian Institute of Information Technology & Management, Gwalior
razor-1	M S Ramaiah Institute of Technology, Bangalore
return-ac	Birla Institute of Technology, Mesra



schrodingers-cat	Birla Institute of Technology, Mesra
SmartPointer	Indian Institute of Technology - Guwahati
soamit	National Institute of Technology, Raipur
sona-sredoc	Sona College of Technology, Salem
spacemonkeymafia	National Institute of Technology, Trichy
starx	Shri Mata Vaishno Devi University
surprisemOf0	International Institute of Information Technology - Hyderabad
tarjanhorse	Indian Institute of Technology - Kanpur
team-7	Indian Institute of Information Technology - Allahabad
teamcode1	Netaji Subhas Institute of Technology, Delhi
tech-gaints	JNTUK University College of Engineering Vizianagaram
techexpert	St. Francis Institute of Technology
techno-rizers	Sri Eshwar College of Engineering
technox-1	Rajiv Gandhi College of Engineering and Research, Nagpur
the-alchemists	Indian Institute of Information Technology - Allahabad
the-exceptions	Sri Ramaswamy Memorial University Institute of Technology, Chennai
the-marauders	International Institute of Information Technology - Hyderabad
the-mathletes	Indian Institute of Technology - Roorkee
the-triads	Indian Institute of Technology - Bombay
thegoodthebadandtheugly	National Institute of Technology, Trichy
TheRiaz	National Institute of Technology, Durgapur
thesurvivors	Maulana Azad National Institute of Technology Bhopal
thundering-herd	BITS-Pilani, Goa Campus
titan-1	University Institute of Engineering and Technology, Panjab University
TL;DR	Indian Institute of Technology - Kanpur
trez	Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar
TrichyCoders	National Institute of Technology, Trichy
triple-kaioken	National Institute of Technology, Trichy
turtles	Birla Institute of Technology, Mesra
upper-bound9	International Institute of Information Technology - Hyderabad
valiant	Jaypee University of Engineering and Technology, Guna
vit-pune	Vishwakarma Institute of Technology
vit-u	Vellore Institute of Technology
warush	International Institute of Information Technology - Hyderabad
wecodetokill	Delhi Technological University
whatte-wow	Sastra University
zombies-1	Amrita University
cyberdna1	CMR College of Engineering & Technology



Participating teams at Bengaluru site

TEAM	COLLEGE
3-clique	National Institute of Technology, Karnataka, Surathkal
3spades	Indian Institute of Technology - Roorkee
absolut-1	Indian Institute of Technology - Guwahati
accreed	Delhi Technological University
adhawk	Delhi Technological University
anonymuskoders	Thapar University, Patiala
bapcoders	Indian Institute of Technology - Roorkee
beginners-4	International Institute of Information Technology - Hyderabad
binary.bugx	Pune Institute of Computer Technology
bitslayers	National Institute of Technology, Karnataka, Surathkal
bluefire	International Institute of Information Technology - Hyderabad
bogus-1	Delhi Technological University
bugassasins	National Institute of Technology, Karnataka, Surathkal
cet-1	College of Engineering, Trivandrum
CheeBooBow	National Tsing Hua University
code-blooded	Thadomal Shahani Engineering College
code-runners	Indian Institute of Technology - Kanpur
codebugzs	B. M. S. College of Engineering
coderror	International Institute of Information Technology - Hyderabad
coders-3	Indian Institute of Technology - Indore
coderz-1	Institute of Technical Education and Research, Bhubaneswar
codeurs	Delhi Technological University
cuda-masters	Sardar Vallabhbhai National Institute of Technology
curiosity-1	International Institute of Information Technology - Hyderabad
cyborgs-1	Maturi Venkata Subba Rao Engineering College
dantes-inferno	Shri Mata Vaishno Devi University
deathcoders-1	Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar
dejavu-1	Indian Institute of Technology - Kanpur
demons	Birla Institute of Technology, Mesra
dominoes	Indian Institute of Technology - Bombay
dota-1	BITS-Pilani, Hyderabad Campus
dummy-1	International Institute of Information Technology - Hyderabad
eatsleepcode	Netaji Subhas Institute of Technology, Delhi
encore	Indian Institute of Technology - Bombay
epoch	Bharati Vidyapeeth's College of Engineering, Delhi
euler-knights	Sardar Vallabhbhai National Institute of Technology
flaggers	Amrita School of Engineering, Bangalore



game-over	Indian Institute of Technology - Bombay
gamecoders	International Institute of Information Technology - Hyderabad
greatgatsby	SRM University
grumpycoders	Birla Institute of Technology, Mesra
hakunamatata-1	International Institute of Information Technology - Hyderabad
heuristics	Bapatla Engineering College
hypnoheads	St. Francis Institute of Technology
icoders-2	Birla Institute of Technology, Mesra
illusion-1	International Institute of Information Technology - Hyderabad
jym-trio	International Institute of Information Technology - Hyderabad
krabathor-1	International Institute of Information Technology - Hyderabad
kryptocyphers	Jaypee Institute of Information Technology University
loopinfinity	Indian Institute of Information Technology - Allahabad
madhattans	Indian Institute of Technology - Madras
mersenne-twister	PDPM Indian Institute of Information Technology Design & Manufacturing, Jabalpur
mitvishal	Manipal Institute of Technology, Manipal
neat-monster	International Institute of Information Technology - Hyderabad
nestedr	International Institute of Information Technology - Hyderabad
nitjsrdecoders	National Institute of Technology, Jamshedpur
nooglers	Indian Institute of Information Technology - Allahabad
notexnor	Netaji Subhas Institute of Technology, Delhi
nullity	Visvesvaraya National Institute of Technology, Nagpur
nullpointers-1	International Institute of Information Technology - Hyderabad
omega-1	Datta Meghe College of Engineering
option-explicit	International Institute of Information Technology - Hyderabad
origin-1	Delhi Technological University
peacode	Pillai's Institute of Information Technology, Engineering, Media Studies & Research
phoenix-2	International Institute of Information Technology - Hyderabad
pirates	Indian Institute of Technology - Guwahati
procoder-1	Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar
proof2	National Institute of Technology, Jamshedpur
randomly	Anil Neerukonda Institute of Technology and Sciences
rising	International Institute of Information Technology - Hyderabad
runtimeerror	Indian Institute of Technology - Delhi
rusted-metal	Birla Institute of Technology, Mesra
sdk	Indian Institute of Technology - Delhi
segfault-1	Motilal Nehru National Institute of Technology - Allahabad
sigtrap	Visvesvaraya National Institute of Technology, Nagpur



spooof-1	Neotia Institute of Technology Management and Science
spyd3r	Birla Institute of Technology, Mesra
stack-underflow	B. M. S. College of Engineering
strokin-threes	Motilal Nehru National Institute of Technology - Allahabad
team-enigma	Indian Institute of Technology - Guwahati
team-nitb	Maulana Azad National Institute of Technology Bhopal
the-3-horsemen	Sardar Vallabhbhai National Institute of Technology
the-art-network	National Institute of Technology, Karnataka, Surathkal
the-flying-dutchman	Amrita School of Engineering, Bangalore
the-hobbits	International Institute of Information Technology - Hyderabad
the-phoenix-rises	Indian Institute of Technology - Kanpur
the-royal-flush	Indian Institute of Technology - Roorkee
the-sombreros	International Institute of Information Technology - Hyderabad
thedecipherers	Thapar University, Patiala
theheuristics	International Institute of Information Technology - Hyderabad
theunit	Indian Institute of Technology (Banaras Hindu University), Varanasi
trailblazerz	Indian Institute of Technology - Madras
transievers	DJ Sanghvi College of Engineering
unicode	National Institute of Technology, Karnataka, Surathkal
unirank	Indian Institute of Technology - Guwahati
vssut-pride1	Veer Surendra Sai University of Technology
we3-1	International Institute of Information Technology - Hyderabad
white-walkers-1	International Institute of Information Technology - Hyderabad
xorcists	Delhi Technological University
xpl01t5	Visvesvaraya National Institute of Technology, Nagpur
xtremereds	National Institute of Technology Warangal
zen-coders	Amrita School of Engineering, Bangalore
zero-1	Indian Institute of Technology - Delhi
zeta	Indian Institute of Technology - Delhi
zeus-pizza	Indian Institute of Technology - Madras
vssut-pride2	Veer Surendra Sai University of Technology
DU Fruit Ninjas	University of Dhaka



Participating teams at Coimbatore

TEAM	COLLEGE
11coders-1	Indian Institute of Technology - Roorkee
64bits	Birla Institute of Technology, Mesra
a-peg-for-every-ten-lines	College of Engineering, Anna University, Chennai
abhimehjee	Jamia Millia Islamia
aitians	Annamacharya Institute of Technology & Science
aka-1	Amrita School of Engineering, Coimbatore
akatsuki11	Sardar Vallabhbhai National Institute of Technology
ambrosia	National Institute of Technology Warangal
ars	Visvesvaraya National Institute of Technology, Nagpur
bashrc-1	Indian Institute of Information Technology - Allahabad
bhu-coders	Banaras Hindu University
blueJAY_	International Institute of Information Technology - Hyderabad
bootssrappers	Indian Institute of Technology - Guwahati
brogrammers-1	Birla Institute of Technology & Science, Pilani Campus
bruteforce-1	Indian Institute of Technology - Delhi
BufferOverflow	International Institute of Information Technology - Hyderabad
bug-found	Harcourt Butler Technological Institute - Āj Kanpur
candid-coderz	Sri Sivasubramaniya Nadar College of Engineering
ceg-coderz-rises	College of Engineering, Anna University, Chennai
checkmate	Indian Institute of Information Technology - Allahabad
codaholics	International Institute of Information Technology - Hyderabad
code-alpha	Sri Manakula Vinayagar Engineering College
code-cannons	Thiagarajar College of Engineering
codefreaky	Pune Institute of Computer Technology
code-genx	Sri Sivasubramaniya Nadar College of Engineering
Codelearners	Indian Institute of Technology - Guwahati
codeprog	Birla Institute of Technology & Science, Pilani Campus
codestar	Sri Shakthi Institute of Engineering & Technology
codezap	BITS-Pilani, Hyderabad Campus
codoholics	Visvesvaraya National Institute of Technology, Nagpur
context-switchers	National Institute of Technology, Jamshedpur
cool-dudes	College of Engineering, Anna University, Chennai
crazyguys	Madras Institute of Technology
cuberoot	Karpagam College of Engineering
curious-coders	Neotia Institute of Technology Management and Science
cvr	CVR College of Engineering
dahv	Indian Institute of Information Technology - Allahabad



davinci-1	Jaypee Institute of Information Technology University
deviantcoders	Amrita School of Engineering, Coimbatore
dijkstra	Indian Institute of Technology - Bombay
divideby0-1	Indian Institute of Technology - Guwahati
divine2	Netaji Subhas Institute of Technology, Delhi
dmn-algo	Motilal Nehru National Institute of Technology - Allahabad
dotcpp	Sardar Vallabhbhai National Institute of Technology
dp-1	Indian Institute of Technology - Kanpur
dracarys-1	Indian Institute of Technology - Bombay
elites-1	MBM College of Engineering, Jodhpur
frainbuck	IIIT-Delhi
funcoders	College of Engineering, Anna University, Chennai
gladiator-1	Indian Institute of Information Technology - Allahabad
greedypointers	Indian Institute of Technology - Hyderabad
green_alert	International Institute of Information Technology - Hyderabad
greenleafpluckers	Indian Institute of Technology - Madras
hashtag-3	Indian Institute of Technology - Kharagpur
hurricanes	Madras Institute of Technology
i3t3i	International Institute of Information Technology - Hyderabad
iisc	Indian Institute of Science, Bangalore
iitbhu_CodeRush	Indian Institute of Technology (Banaras Hindu University), Varanasi
iitbhu-decepticons	Indian Institute of Technology (Banaras Hindu University), Varanasi
iitbhu_tesseract	Institute of Technology Banaras Hindu University
imf	Rajeev Gandhi Memorial College of Engineering and Technology
jacks-retarded-code	Indian Institute of Technology - Delhi
jaffacoders	International Institute of Information Technology - Hyderabad
kodec1	Netaji Subhas Institute of Technology
lambda-1	Indian Institute of Technology - Bombay
lazy-coders-3	Indian Institute of Information Technology - Allahabad
legaxorz	PSG COLLEGE OF TECHNOLOGY[COIMBATORE]
letscode2	Netaji Subhas Institute of Technology, Delhi
life-universe-and-everything	Indian Institute of Information Technology - Allahabad
mapreduce-1	Amrita School of Engineering, Coimbatore
mavericks-3	International Institute of Information Technology - Hyderabad
memset-1	Netaji Subhas Institute of Technology, Delhi
mnnit-coders	Motilal Nehru National Institute of Technology - Allahabad
morpheus-1	Indian Institute of Information Technology - Allahabad
mrboson	Birla Institute of Technology & Science, Pilani Campus
mutex-1	Indian Institute of Technology - Guwahati
nabonidus-1	IIIT-Delhi



naughtylus	Indian Institute of Technology - Kharagpur
nirmas-enlightened	Nirma University
nist-coders-2011	National Institute of Science & Technology
no-internet-access	National Institute of Technology, Karnataka, Surathkal
novice-3	International Institute of Information Technology - Hyderabad
null-terminators	National Institute of Technology Warangal
omega-2	Indian Institute of Technology - Kanpur
one-hit-wonders	Rajeev Gandhi Memorial College of Engineering and Technology
one-one-onto	Indian Institute of Technology - Kanpur
optimal	Malviya National Institute of Technology Jaipur
optimizers-3	Birla Institute of Technology & Science, Pilani Campus
panchjanya	International Institute of Information Technology - Bangalore
pandora-1	Amrita School of Engineering, Coimbatore
pandoras-illusion	Indian Institute of Technology - Kanpur
paradigm-shift	Indian Institute of Technology - Indore
param-name	Birla Institute of Technology & Science, Pilani Campus
patrox-1	Bengal Engineering and Science University, Howrah
phoenix-4	Birla Institute of Technology & Science, Pilani Campus
phoenix-3	Sastra University
Pineapple	Indian Institute of Technology - Indore
Priesters	Jaypee University of Engineering and Technology, Guna
progenius	Indian Institute of Technology - Roorkee
pseudoturing	MVSR Engineering College
psykes	International Institute of Information Technology - Hyderabad
raising-coders	International Institute of Information Technology - Hyderabad
recians	Rajalakshmi Engineering College
recusers	Bengal Engineering and Science University, Howrah
science-coders	Banaras Hindu University
scube-1	Netaji Subhas Institute of Technology, Delhi
second-year1	Velammal College of Engineering and Technology
segfault-2	Sardar Vallabhbhai National Institute of Technology
segmentationfault-1	National Institute of Technology, Karnataka, Surathkal
sigsegv-2	Netaji Subhas Institute of Technology, Delhi
sigsegv-nit	Motilal Nehru National Institute of Technology - Allahabad
slashback	International Institute of Information Technology - Bangalore
some-vague	Indian Institute of Technology - Bombay
spectrum-1	Indian Institute of Information Technology - Allahabad
spy-1	Netaji Subhas Institute of Technology, Delhi
stimuli	Delhi Technological University
superblock	National Institute of Technology, Durgapur



symbols	Amrita School of Engineering, Coimbatore
syntaxerror	Indian Institute of Technology - Bombay
team-b-vcet	Velammal College of Engineering and Technology
teamnsitinvinci	Netaji Subhas Institute of Technology, Delhi
the-croods	Bannari Amman Institute of Technology
this-iz-spartaa-ahoo-ahoo	Indian Institute of Information Technology - Allahabad
triviality	Netaji Subhas Institute of Technology, Delhi
trojans-1	International Institute of Information Technology - Hyderabad
trouble-di-ent-at-ng-er	Sri Shakthi Institute of Engineering & Technology
u-win	University Visvesvaraya College of Engineering
ubergeeks	Amrita University
vanilla-twilight	Indian Institute of Technology - Jodhpur
vasavi-cse8	Vasavi College of Engineering
VictoriousWarriors2	Netaji Subhas Institute of Technology
wecoders	Indian Institute of Information Technology - Allahabad
XPIRATE	Malviya National Institute of Technology Jaipur
xtroders	Thiagarajar College of Engineering
yellow42	International Institute of Information Technology - Hyderabad
yogi-totient	International Institute of Information Technology - Hyderabad
zephyr-1	MES College of Engineering
zootoodoo	Netaji Subhas Institute of Technology, Delhi

Past winners from Asia – Amritapuri Site

- 2007 – National Taiwan University, Taiwan
- 2008 – IIIT, Hyderabad, India
- 2009 – Sogang University, South Korea
- 2010 – Fudan University, China
- 2011 – Indian Institute of Technology, New Delhi, India
- 2012 – Indian Institute of Technology, Bombay



Who is Who

Regional Contest Director

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Associate Site Director

Amritapuri

Anand Shenoy, anand@am.amrita.edu

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Bengaluru

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Coimbatore

K Gangadharan, Professor, k_ganga@amrita.edu

Prashant Nair, Assistant Professor, prashant@amrita.edu

Role	Amritapuri	Bengaluru	Coimbatore
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Travel & Transport	Midhun P K, midhunpk@am.amrita.edu	Dr. Veeresh Kumar G. B. gb_veeresh@blr.amrita.edu	Arun Kumar, c_arunkumar@cb.amrita.edu
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To keep in touch and receive news and updates, see

<http://twitter.com/icpcamritapuri>

<http://www.facebook.com/pages/ACM-ICPC-Asia-Amritapuri/145083105515149>

How to Reach

Amritapuri

By Air: Nearest Airports: Kochi (also known as Cochin) International Airport (COK) is 140 km away from Amrita University Campus and Thiruvananthapuram (also known as Trivandrum) International Airport (TRV). is 130 km from Amritapuri Campus. A prepaid taxi available at both the airports will take you to the campus. Remember to change money at the airport, since only Indian rupees are accepted for payment.



By Train: Kayamkulam Railway Station (KYJ) (12 km north of Amritapuri campus) is the closest town situated towards north of the venue of Onsite Contest. Small auto-rickshaws can bring you to Amrita University Campus from the Railway station, which takes about 20 minutes and costs about Rs.150. Taxis cost about Rs. 220. Bus services are also available from Kayamkulam Bus Stand to Vallikkavu, which is approximately five minute walk from the campus. **By Bus:** From the Ernakulam (Kochi) transport bus stand, board a bus going towards Trivandrum via Alappuzha, and alight at Ochira. From Ochira, either hire an auto-rickshaw to Amrita School of Engineering straight, which is nearly a 6 km drive from Ochira and costs about Rs.60 (or a taxi) or board a bus going towards Vallickavu.

Bengaluru

By Bus: The Campus is located in south Bengaluru on a road connecting Sarjapur Road and Hosur Road and is about 2 kilometers from Kaikondranahalli bus stop on Sarjapur Road. [Click here for information on bus routes to campus.](#)

By Air : Bengaluru's new airport at Devanahalli is located about 50kms away from the Campus. It is well connected, however, with special buses plying to major centers such as Majestic and City Market.

By Train: The campus is located about 17 kilometers from the City Railway Station close to the Majestic bus station. Almost all trains bound for Bengaluru terminate at the City Railway Station. However, there are a few trains which do not touch this station but terminate at Yeswantpur Railway Station which is about 23 kilometers from the campus.

Coimbatore

By Air: Nearest Airports: Coimbatore Airport is 40 km away from Amrita University, Ettimadai (Coimbatore) Campus. Kochi (also known as Cochin) International Airport (COK) is 200 km away from Amrita University Ettimadai Campus. A prepaid taxi available at both the airports will take you to the campus. From Coimbatore airport to Ettimadai campus, the pre-paid taxi charge would cost Rs. 500/-. Remember to change money at the airport, since only Indian rupees are accepted for payment. If you want to take a bus, take a bus from Coimbatore airport to Gandhipuram bus stand. From Gandhipuram bus stand, take Bus # 96 and ask for the Ettimadai stop. From there one can take an auto to campus.

By Train: Ettimadai Railway Station (1/2 km from Coimbatore campus) is the closest station situated towards the venue of Onsite Contest which is approximately five minute walk from the campus. The next nearest railway station is Coimbatore (CBE). Taxis can bring you to Amrita University Ettimadai Campus from the Railway station, which takes about 45 minutes and costs about Rs.300. Bus services are also available from Railway Station to Ettimadai main Road from where one could take an auto to reach campus that would cost Rs.30.

By Bus: From the Gandhipuram Moffusil bus stand, proceed to the town bus stand. Take the bus with No.96 and proceed to Ettimadai. Then you could take an auto to reach campus. From Ukkadam, one could also take bus No.48 or S2. Ukkadam is 4 km from Gandhipuram. Lot of



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town buses are available from Gandhipuram to Ukkadam. If one wishes to take an auto from Gandhipuram to Ukkadam, it would cost Rs.50.