

NEWSLETTER

AMRITA UNIVERSITY, AMRITAPURI CAMPUS



AMRITA UNIVERSITY

Amrita University is a multi-campus and multi-disciplinary academic and research university that is accredited 'A' by NAAC and is ranked as one of the best research universities in India. It is the youngest university to be awarded with an 'A' grade by the National Assessment and Accreditation Council (NAAC). Amrita has so far produced 16214 engineers, 1411 doctors, 9511 arts and science professionals, 2094 business professionals and 106 PhDs. There are close to 30,000 alumni called Amritians, spread around 20 countries across the globe, who are connected virtually to each other.

More recently Amrita has been ranked in the top 200 universities in the QS BRICS University rankings and within the Times Higher Education World University rankings. Amrita University offers over a hundred different degree programs in its fifteen schools spread across its five campuses spanning the three southern states of India.

AMRITAPURI CAMPUS

Spread over 80 acres of land, 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. It is currently home to numerous schools and research centers. Distinguished professors and scholars share their knowledge and experiences with the students. The campus provides all modern amenities from playgrounds to cafeterias.

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.

The B.Tech and M.Tech courses offered by the university has been filled to capacity this year too just as it was in the past four academic years, that is, since the inception of these courses.

NOVEMBER
2016

A QUARTERLY NEWSLETTER

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Issue 03

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DEPT OF CSE & CSA

OFFERING BEST IN CLASS EDUCATION IMBIBING
GLOBAL SYNERGY & LATEST TECHNOLOGICAL DEVELOPMENTS

The Department of Computer Science and Engineering at the Amritapuri Campus offers undergraduate, graduate and doctoral programs. Over 1000 students are currently enrolled in the B. Tech., M. Tech. and Ph. D. programs offered. In addition, the Department offers a three year Master of Computer Application program, a two year M. Sc. (Computer Science) program and a three year BCA (Computer Application) program.

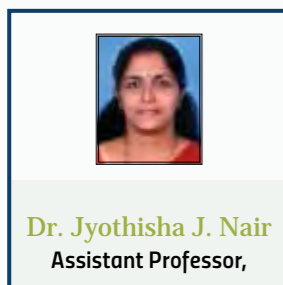
The Department of Computer Science is one of the largest and well established centres of learning computer science in South India offering B Tech, B.Tech Honours, M Tech, BCA, and MCA programmes. Experienced and highly qualified faculties facilitate the students to achieve a high level knowledge and skills on recent trends in computing. The department has close association with reputed institutions in India and abroad (SUNY Buffalo, VU, UC Davis etc) to support students in their academics and final projects as internship. Through this rapport, students also get opportunities to learn conventional as well as emerging areas in core computer science. Campus has well established research centres carrying out real time projects in different areas in computer science, funded by the industry and the government. Research environment at campus is an added advantage for one who seeks career in teaching and research, after the post-graduation. Department also hosts prestigious programming contest ACM-ICPC-known as the "Olympics of Programming Contest" every year.



Dr. M. R. Kaimal (Chairperson)

THE FEATHERS ON THEIR CAPS FACULTY ACHIEVEMENTS

Our well-qualified and globally experienced teaching faculty continues to prove their mettle.



Dr Jyothisha J Nair chaired a session on "International Conference on Computing Communication and Signal Processing", Conducted by College of Engineering, Karunagappally on 9th July 2016.



Dr Sajeev G.P chaired a session on International Conference on Advances in Computing, Communications and Informatics (ICACCI-2016) on 24th September 2016

INTERNATIONAL JOURNAL PAPERS PUBLICATIONS

- Susanna Thomas, **Dr.Jyothisha J Nair** "Improved Apriori with Frequent Subgraph Tree for Extracting frequent subgraphs, International Journal Intelligent and Fuzzy Systems, IOS Press, Switzerland. (Scopus-indexed with impact factor 1.16)
- Lukasz Ziarek, Bharat Jayaraman, DemianLessa, **J. Swaminathan**, Runtime Visualization and Verification in JIVE, 16th International Conference, RV 2016, Madrid, Spain, September 23-30, 2016, pp 493-497.
- Remya R K Menon, Deepthy Joseph, **M R Kaimal**."Semantics Based Topic Inter Relationship Extraction" International Journal Intelligent and Fuzzy Systems, IOS Press, Switzerland. (Scopus-indexed with impact factor 1.16)

INTERNATIONAL CONFERENCE PAPERS

- Gayathri R.G, **Dr.Jyothisha J Nair**, **Dr.M.R.Kaimal** " Extending Full transitive closure to rank removable edges in GN algorithm "6th International Conference on Advances in Computing & Communications".
- Siji Rani S**, Rahul Rajeev, "Color Transformation for Deuteranopic viewers" International Conference on Computing Paradigms (ICCP 2016), International Journal of Control Theory & Applications, Volume 9, Issue 10, 2016, Pages 4527-4535
- Sarath S**, Gopika P S, ChinnuR,"Real Time Smart Traffic Control System Using Dynamic Background" International Conference on Computing Paradigms (ICCP 2016), Volume 9, Issue 10, 2016, Pages 4549-4555
- H Haripriya, **C. P. Prathibamol**, Yashwant R Pai, M Sai Sandeep, Arya M Sankar, V Srinivas Nag and PremaNedungadi,"Multi Label Prediction Using Associations Rule Generation and Simple K -Means", 15 July 2016, Article number 514571, Pages 159-163.
- PrabhuSeshagiri,,AnuVazhayil, **PadmamalaSriram**, "AMA: Static Code Analysis of Web Page for the Detection of Malicious Scripts", Elsevier Procedia Computer Science Proceedings of the 6th International Conference on Advances in Computing & Communications, Volume 93 2016, Pages 768-773
- Bipin B, **Dr.Jyothisha J Nair** " Image Convolution Optimization using Sparse matrix Vector Multiplication Technique", International Conference on Advances in Computing, Communications and Informatics (ICACCI-2016).
- Hrishikesh N, **Dr.Jyothisha J Nair** "Interactive Learning System for the Hearing Impaired and the Vocally Challenged", International Conference on Advances in Computing, Communications and Informatics (ICACCI-2016).
- Susanna Thomas, **Dr.Jyothisha J Nair** "A Survey on extracting frequent subgraphs", International Conference on Advances in Computing, Communications and Informatics (ICACCI-2016).
- Susanna Thomas, **Dr.Jyothisha J Nair** "Improved Apriori with Frequent Subgraph Tree for Extracting frequent subgraphs", International Conference on Advances in Computing, Communications and Informatics (ICACCI-2016).
- Prasad K and **Sajeev GP** (2016), "A Novel Method for Resource Discovery From a Range Based Request in a P2P Network", In Symposium on Emerging Topics in Computing and Communications (SETCAC'16) Jaipur, India, September, 2016. , pp. 1271-1276.
- Sajeev G P and Annam M (2016), "Entropy Based Informative Content Density Approach for Efficient WebContent Extraction", In Fourth International Symposium on Women in Computing and Informatics(WCI-2016) (WCI-2016). Jaipur, India, India, September, 2016. , pp. 118-124.

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 **41**
Faculty

 **29**
Publications

 **6**
Faculty
with PhD

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- Sajeev G P and Lekshmi M Nair (2016), "LASER: A Novel Hybrid Peer to Peer Network Traffic Classification Technique", In Fourth International Symposium on Women in Computing and Informatics (WCI-2016) (WCI-2016). Jaipur, India, India, September, 2016. , pp. 1364-1370.
- Sajeev G P and Ramya P T (2016), "Effective Web Personalization System Based on Time and Semantic Relatedness", In Fourth International Symposium on Women in Computing and Informatics (WCI-2016) (WCI-2016). Jaipur, India, India, September, 2016. , pp. 1390-1396.
- Veena G, Aparna Shaji Peter, Anitha Rajkumari K and Neeraj Ramanan "A Concept-based Model for Query Management in Service Desks". "International Conference on Innovations in Computer Science & Engineering (ICICSE-2016)", August 7-8, Guru Nanak Institutions, Hyderabad, India 2016 Proceedings in Springer AISC (Advances in Intelligent Systems and Computing) Series.
- M G Thushara, Varun Prakash, Pranav Kumar A, "Panel Generation as an Application of Genetic Algorithm", Second International Conference on Computing Paradigms", 24-25 July 2016, International Journal of Engineering and Technology/ International Journal of Control Theory and Applications.
- M G Thushara, Nikhil Dominic, "A Template based Checking and Automated Tagging Algorithm for Project Documents", Second International Conference on Computing Paradigms", 22-24 July 2016, International Journal of Engineering and Technology/International Journal of Control Theory and Applications.
- Ramar K, Subbulakshmi S, Arya Krishnan R, Divya S, "Web Services QoS Prediction based on Dynamic Non-Functional Quality Factors and WS-Security Policy Specification of Web Service", Second International Conference on Computer paradigms (ICCP 2016), 22-24 July 2016, International Journal of Engineering and Technology.
- Subbulakshmi S, Ramar K, Renjitha R, Sreedevi T U, "Implementation of adaptive framework and WS Ontology for Improving QoS in Recommendation of Web Services", ICACCI-2016, IEEE 21-24 Septemeber 2016.
- Jayakumar P, Prasanth R Sharma, Yadhu E.M, "Optimization Strategies For Product Rating Using User Review Analysis", Second International conference on computing paradigms (ICCP 2016), 22-24 July.
- Indulekha T.S, Akhil G Nair, Harikesh P, "Graphical Representaion of Prolog traces", Second International Conference Computer Paradigms (ICCP 2016), 22-24 July 2016, International Journal of Engineering and Technology.
- Binu P K, Viswaraj V S, "Android based Application for Efficient Car Pooling with user Tracking facility", Second International Symposium on Emerging Topics in computing and Communications, 24 September 2016, IEEE.
- Chaitanya Medini, Anjitha Thekkekuriyadi, Surya Thayyilekandi, Manjusha Nair, Bipin Nair, ShyamDivakar, "Modelling Basal Ganglia Microcircuits using Spiking Neurons", ICACCI- 2016, 21-24 September, IEEE.
- Chaitanya Nutakki, Ahalya Nair, Chaitanya Medini, Manjusha Nair, Bipin Nair, ShyamDivakar, "Computational Reconstruction of FMRI-BOLD from Neural Activity", ICACCI 2016, IEEE, 21-24 September 2016.
- Kavitha K R, Syamili Rajendran G, Varsha J, "A correlation Based SVM-Recursive Multiple Feature Elimination Classifier for Breast Cancer Disease using Microarray", 5th International Conference on Advances in Computing, Communications and Informatics, IEEE, 21-24 September 2016.
- Kavitha K R, Sandeep S, Praveen P R, "Improved Spectral Clustering using PCA based similarity measure on different Laplacian Graphs", International Conference on Inventive Computation Technologies, 26-27 August 2016, IEEE.
- Jayashree Nair, Ajeesh A, Jijin P S, "A Radom Forest Approach for Rating-based Recommender System", 5th International Conference on Advances in Computing Communications and Informatics, 21-24 September 2016, IEEE.
- Ani R, Greeshma Sasi, Resmi Sankar U, "Decision Support System for Diagnosis and prediction of chronic Renal Failure using Random Subspace Classification", Symposium on Emerging Topics in Computing and Communications (SETCAC'16), 21-24 September 2016, IEEE.
- Remya R K Menon, Neethu V Kini, Athira Krishnan G, "Harnessing the Discriminatory Strength of Dictionaries", Second International Symposium on Emerging topics in Computing and Communications. 21-24 September 2016, IEEE.
- Binu P K, Sreekutty H.L, Sreekutty V.S, "Security Plugin for Mozilla which Integrates Cryptography and Steganography Features", Second International Symposium on Emerging Topics in Computing and Communications, 21-24 September 2016, IEEE

COMPUTER SCIENCE

DEPARTMENTAL ACTIVITIES



Department of Computer Science started the new professional ACM student chapter, ASEAm, and was formally inaugurated on 23rd August 2016 by Dr. Madhavan Mukund (President ACM India Council Professor and Dean of Studies, Chennai Mathematical Institute).



Faculty interaction and distinguished lecture is organized by ASEAm, ACM Student chapter Amritapuri on "Recent Trends in Computer Engineering", by Dr. Madhavan Mukund, President ACM India, Professor and Dean of Studies, Chennai Mathematical institute on 23rd August 2016.

Dr. Phalguni Gupta
IITKharagpur



Distinguished Lecture

on "Biometric Systems by Dr. Phalguni Gupta IITKharagpur is organized by ASEAm, ACM Student chapter Amritapuri on 7th September 2016.

Department of Computer Science started the new professional ACM student chapter, ASEAm, and was formally inaugurated on 23rd August 2016 by Dr. Madhavan Mukund (President ACM India Council Professor and Dean of Studies, Chennai Mathematical Institute).



STUDENT ACHIEVEMENTS

Start-Ups

Binil Baby, Naveen Joseph and Arjun S of 2013-2016 BCA batch started a company called Zeal Motion



The team Arjun S, Binil Baby and Naveen Joseph of BCA 2013-2016 batch students took initiative to develop A-CAPS (Amrita Car-Pooling System), as part of their project. Also they have started a company, zealmotion which provides the services to develop digital Apps.

TECHNICAL ACHIEVEMENTS

- Abinand N of 2015-2019 CSE won a Prize money of \$500 in Fedora Users and Developers Conference from Google held in October.
- Abinand N of 2015-2019 CSE won a Prize money of \$5500 in Google Summer of Code, 2016 held in October.
- Srijan Agarwal of 2015-2019 CSE was selected for G Soc(Summer Project) on October that carries along with it \$5500 as prize money.
- Srijan Agarwal of 2015-2019 CSE had attended FUDCon APAC 2016, Phnom Penh, Cambodia as an Invited Speaker on 4th November 2016.
- Aaditya Menon of 2015-2019 CSE developed “SimpleWeather” App in Google Play Store on September 2016.
- SreeLakshmy of 2013-2017 CSE batch was selected for Scholarship of one month internship from BGU University, Israel, on July 2016 that carries along with it \$5900 as the prize money.
- Amrita Suresh of 2013-2017 CSE was selected for attending ROSCON Conference on October 2016 that carries along with it \$1525 as prize money.
- Anjali Menon of 2013-2017 CSE was selected for Scholarship of one month internship from BGU University, Israel,
- Anjali Menon of 2013-2017 CSE was selected as a student Scholar to attend Grace Hopper Conference on October with a travel grant of \$2400.
- Haritha Harikumar of 2014-2018 CSE received full scholarship in attending Summer Classes in Tel-Aviv University.
- Anagha R of 2014-2018 CSE received Grace Hopper Celebration scholarship (GHCI) scholar.

Mr Abhishek J M of BCA topped Google CTF.



Abhishek J M and Akhil Mahendra of 5th semester BCA topped Google CTF 2016 nationally, as a part of team biOs – an ethical hacking team of Amrita University.

- H Chaitanya of 2014-2018 CSE was selected as a Developer at Learn IT, Girl(Co-sponsored by Google).
- Gokul Krishna P, Jayakrishna Menon V and Ajay Menon of 2014-2018 CSE had acclaimed 19th position in ASIS cybersecurity contest.
- Gokul Krishna P, Jayakrishna Menon V and Ajay Menon of 2014-2018 CSE had obtained 20th position in Tokyo Westerns.
- Devi R Krishnan and Sudarshan S of 2014-2018 CSE have completed Google Summer of Code 2016 with scholarship of above 3 lakhs.
- Krishnavajjala Krishna Samhitha of 2014-2018 CSE got selection for attending Google Internship Interview, to be held in November

Campus Level

Sanjay (S7 CSE), Sreelekshmi Ajith (S5 CSE), Sreekanth T (S7 CSE), Akhil Ravi (S5 CSE), Athira (S5 CSE) developed the official website of ASEam, ACM Student chapter Amritapuri and is hosted in the domain ACM.org

National Level

1. Anagha R and H Chaitanya of 2014-2018 CSE have been awarded full scholarship to attend GHCI conference, to be held in Bangalore 2016.
2. Abhishek D of 2016-2020 CSE got first prize in an event of IoT workshop(Entry to contest to be conducted in IIT Varanasi).
3. Siddharth M of 2016-2020 CSE got selected as number one team(BIOS Team) in India by CSAW CTF.
4. Srijan Aggarwal of 2015-2019 CSE was an Invited Speaker in Wikimedia Hackathon at BITS Pilani.
5. Shiv Krishna A of 2014-2018 CSE won in Tux of War-Tathva-at NIT Calicut and secured 2nd Place.



Mr Abhishek J M delivering talk on Android Security.

6. D Anirudh, E.G Nidheep, Gokul Krishna P, and Jayakrishna Menon V of 2014-2018 CSE had won in Tux of War and obtained 1st, 3rd, 1st and 2nd positions respectively.
7. Adarsh R of 2013-2016 BCA took a session on Phishing in IIT Delhi during RoboTryst 2016 organized by Robosapiens.
8. Adarsh R of 2013-2016 BCA Assisted in a lab session on “introduction to R language” in IIT Mumbai during a workshop on Big Data (2016).
9. Mr Abhishek J.M of 5th semester BCA was assigned CVE 2015-5612 for revealing a vulnerability in an open source Content Management System: October CMS – with more than one lakh users across the globe.
10. Mr Abhishek J.M of 5th semester BCA Served as a teaching assistant at the International Summer School for Information Security and Protection,(ISSISP) 2016, held at Bengaluru.
11. Abhishek J M of 5th semester BCA, delivered a talk on Android security – specifically relating to Android applications at the Cysinfo Cyber Security Community Meet, held at Amrita University, Bengaluru, September 2016

ACHIEVEMENTS IN SPORTS

National Level

Gokul N-of 2015-2019 CSE batch won 3rd position in Inter Campus Swimming Competition

Student Exchange Programme/Summer School Internship/MS admissions at Foreign University

- Mr. Krishna Chandran K S (Roll No: AM.AR.U314BCA032), 2014 BCA batch student was selected to Halmstad University, Sweden to study the 6th semester under Student exchange programme.
- Mr Adarsh R , 2013 BCA batch student attended Summer Schools in Amsterdam with complete scholarships in 2016 .
- Mr. Arjun Krishna Babu, 2013 BCA batch student (Roll No: AM.AR.U313BCA015) got admission to MS Programme at University of New Mexico.

DEPARTMENT OF EEE

COMMITTED TO MOULDING THE STUDENTS FOR MEETING FUTURE GLOBAL REQUIREMENTS

The Amrita School of Engineering at Amrita began offering the B. Tech. degree in Electrical and Electronics Engineering in 2005. The program provides excellent technical knowledge in emerging areas of Electrical Engineering.

Electrical and Electronics Engineering continues to transform the way we live from the latest consumer products to sophisticated scientific, industrial and healthcare technologies. Electrical and Electronics Engineering is a field of engineering that generally deals with the study and application of electricity, electronics and electromagnetism. Integrating computer programming, electronics and communication with electrical engineering, makes this discipline the most interesting branch of engineering. Job opportunities are ample in both private and public sector like railways, civil aviation, power plants and utility companies, electrical design and consultancy firms and all types of manufacturing industries.

The Department of Electrical & Electronics Engineering, Amritapuri Campus is committed to mould the students for global requirements by providing quality education to meet the needs of the industry. The Department has a fine blend of renowned as well as young and dynamic personalities as faculty members, who have been motivating the students for getting the best out of them. The department of EEE aims at being the world class centre in Electrical Engineering education through excellent teaching, applied research and professional services, for the benefit of the society. The department is having well equipped state-of-art laboratories and research facilities. The department focuses on overall development of the students imparting knowledge and skill through projects and seminar presentations and encourages students' association activities, internships and industrial visits. Value education and professional ethics are also an integral part of the curriculum.



Dr. Manjula G. Nair (Chairperson)

THE FEATHERS ON THEIR CAPS

FACULTY ACHIEVEMENTS

Our well-qualified and globally experienced teaching faculty continues to prove their mettle.



Mr. Ilango K
Assistant Professor,

Mr. Ilango K , Assistant Professor (Sr.Gr.) has been conferred with PhD from Amrita University on August 2016 . Dr. Ilango's PhD thesis was supervised by Dr. Manjula G Nair, Professor & Chairperson, Electrical and Electronics, Amrita University, Amritapuri.



Mr. Meher Madhu D
Assistant Professor,

Mr. Meher Madhu D, Assistant Professor, Dept of Electrical and Electronics have filed for US patent on " System and method for providing rapidness and precision in the control of robotic structure" in August with Application number:201641026765.



Mr. Srikanth V
Assistant Professor,

Mr. Srikanth V, Assistant Professor (Sr.Gr), Dept of EEE has been featured in the IEEE Industry Applications Magazine July-August 2016 issue. He was spotlighted in the "Pathways", a feature introducing the IEEE IAS young professionals.

PUBLICATIONS

INTERNATIONAL JOURNAL

- Ashly Dhanesan, Anudev J, Ravishankar A N, "Analysis Of Controllers For Pv System With Quadratic Boost Converter", Proceedia Technology
- Shweda Mohan, Amritha S, Nandagopal J L, "COUPLED DYNAMIC CONTROL OF Unicycle Robot Using Integral Lqr And Integral Sliding Mode Controller", Proceedia Technology.
- Vishnu Prasad, Jayasree P R, Sruthy V, "Active Power Sharing And Reactive Power Compensation Of A Grid-Tied Photovoltaic System", Proceedia Technology.

INTERNATIONAL CONFERENCE PAPERS

- Anu Varghese, Lekshmi R Chandran, Arun Rajendran, "Power Flow Control Of Solar PV Based Low Voltage DC Microgrid With Battery Management System" IEEE First International Conference on Power Electronics, Intelligent Control and Energy systems (IEEE ICPEICES 2016),4-6 July 2016, DTU, Delhi.
- Chinthu Chandrasekharan C, Lekshmi R Chandran, Arun Rajendran, "Power flow control in low voltage AC micro grid using PV resistor and battery energy storage" IEEE First International Conference on Power Electronics, Intelligent Control and Energy systems (IEEE ICPEICES 2016),4-6 July 2016, DTU, Delhi.
- Manju S, Seema P.N, Arun Rajendran, " A Novel Algorithm For Power Flow Management In Combined AC/DC Microgrid" IEEE First International Conference on Power Electronics, Intelligent Control and Energy systems (IEEE ICPEICES 2016),4-6 July 2016, DTU, Delhi.

- Nithyasree Balakrishnan, Lekshmi R Chandran, Angel T.S. "PV-Battery System For Smart Green Building Using Transformer Coupled DC-DC Converter" IEEE First International Conference on Power Electronics, Intelligent Control and Energy systems (IEEE ICPEICES 2016),4-6 July 2016, DTU, Delhi.
- Preetha P.K, Dr.Manjula G Nair, Surya Babu S, "DC Link Voltage Regulation In Active Filter Using Drainage Power From Distribution Transformer" IEEE First International Conference on Power Electronics, Intelligent Control and Energy systems (IEEE ICPEICES 2016),4-6 July 2016, DTU, Delhi.
- Lekshmi.Js, Nandagopal.JI, "Control For Transformation Of A Four Wheeled To Two Wheeled Mobile Robot", IEEE First International Conference on Power Electronics, Intelligent Control and Energy systems (IEEE ICPEICES 2016),4-6 July 2016, DTU, Delhi.
- Vishal Raveendran, Dr.Manjula G Nair, Navaneet Krishnan,"Active power compensation by smart park in DC metro railway", IEEE First International Conference on Power Electronics, Intelligent Control and Energy systems (IEEE ICPEICES 2016),4-6 July 2016, DTU, Delhi.
- Deepa V, Seema P N, Dr.Manjula G Nair, "Implementation of a consumer level intelligence in a smart micro grid along with HEMS drive prediction scheme", IEEE First International Conference on Power Electronics, Intelligent Control and Energy systems (IEEE ICPEICES 2016),4-6 July 2016, DTU, Delhi.
- Syama T, Vivek A, "Comparative Study Of Controllers For The Speed Control Of Electric Bicycle" IITR-International Conference On Electrical , Electronics, Computer Science, Management And Mechanical Engineering (Ice2csm2e-2016).

DEPARTMENT ACTIVITIES

M.TECH. EEE STUDENTS BLEND TECH AND SERVICE IN FIELD TRIP TO IDUKKI

KOMALIKUDI VISIT

Forty-five M.Tech. students of Power & Energy, Control & Instrumentation, along with faculty members from the Department of Electrical & Electronics Engineering, Amritapuri campus spent August 12th and 13th, 2016, as a part of co-curricular activity in Munnar and Idukki. First day they visited the Neraimangalam dam and hydro power plant. In the Amrita SeRve village of Komalikudi, Idduki they visited the micro hydro power plant ,and enjoyed fresh water from the borewell and distribution system, both built by their fellow students and faculty . In Komalikudi, they also spent the day interacting with the village children and helping them celebrate Independence Day.



M.TECH FAREWELL

On 19th July 2016, the Department of Electrical and Electronics organized a farewell function for the outgoing M.Tech batches. Certificates of Excellence and Appreciation were given to outstanding students of the batch. Dr. Jyothi S.N, Principal, ASE presided the function. Dr. Manjula G Nair, Chairperson, EEE delivered the farewell note.



POSTER SESSION

In order to showcase the research work in the department, a poster session was organized on 19th July 2016 at Sanjeevani hall of Amritapuri Campus. The session had more than 30 posters, exhibiting high quality research carried out by post graduate students of Electrical Engineering. The session was well visited by students and staff from various departments.



PROJECT EXHIBITION

Department of Electrical & Electronics Engineering of Amritapuri Campus organized project exhibition on 15th July 2016 to showcase the research work carried by PG/PhD students . The exhibited projects were reviewed by technical experts and the quality of the projects were well appreciated.

National Workshop on "FPGA Applications in Power & Control"

Department of Electrical & Electronics Engineering, School of Engineering (Amritapuri Campus) organized a Two day National Workshop programme on "FPGA Applications in Power & Control" from 2nd September to 3rd September 2016 in association IEEE PES & IAS Students Chapters. The workshop focused on, understanding Xilinx FPGA architecture and design, Working with FPGA development boards Implementing sequential and combinational logic inside the FPGA Interfacing the PWM to the converters and motor Interfacing with hardware component like LED, LCD,ADC and DAC SPWM generation Integrating the Xilinx System Generator with MATLAB. Scholars inside and outside the campus were the beneficiary.

DEPT OF MECHANICAL ENGINEERING

CREATING BRIGHT PROMISING ENGINEERS WITH SHARP INNOVATIVE SKILLS

Mechanical engineering involves the analysis, design, manufacturing, and maintenance of various systems such as manufacturing plants, industrial equipment and machinery, heating and cooling systems, motor vehicles, aircraft, watercraft, robotics and even medical devices.

The Department of Mechanical Engineering at the Amritapuri campus was started in 2004. The Department offers a B.Tech. program in mechanical engineering. Over 200 students are currently enrolled in this undergraduate program. The competent and committed faculty in the department have extensive academic, research and industrial experience. The department also has a team of dedicated and highly experienced supporting staff to help the students in the laboratories.

Research areas include nano fabrication and nano precision optics. In addition, research is conducted in various fields of Mechatronics such as Robotics, Automation and Computer Integrated Manufacturing.

Students of the department are encouraged to read and publish papers in journals even at the undergraduate level. They are encouraged to work on projects, either individually or on teams.

For example, Chakshuyaan or vehicle-with-eyes, a recent student project, that also saw participation from other departments, won top awards in many national-level competitions.

The department is proud to have some of the most sophisticated lab equipment available today, in its state-of-the-art laboratories. A dedicated team of lab staff is available to guide students in the laboratory course work.

In addition to the campus library, the department has an extensive departmental library with books and subscriptions to current journals.



Dr. Balakrishnan Shankar (Chairperson)

INTERNATIONAL JOURNAL PAPERS PUBLICATIONS

- Arun C A, Sreekumar P C, "Modelling and performance evaluation of a parabolic trough solar collector desalination system", PMME 2016, PACE Institute of technology and science, Ongole, Andhra Pradesh. 29-30th July 2016.
- R Ananthapadmanabhan, S Arun Babu, K R Hareendranath, C Krishnamohan, S Krishnapillai, Krishnan A, "Investigation on multiple algorithms for multi-objective optimisation of gear box" International conference on advances in materials and manufacturing applications 14th - 16th July 2016.
- Anjai Krishnan, Ganesh Udupa and Pramod Sreedharan, Design and Simulation of Lunar Soft Lander, International Journal of control theory and applications. Vol.9, Issue,13, pp 5835-5843, 2016

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26
Faculty



3
Publications

MECHANICAL ENGINEERING DEPARTMENTAL ACTIVITIES

- Department of Mechanical Engineering in association with National Society of Fluid Mechanics & Fluid Power (NSFMFP) conducted 3 days National Workshop on Research Methodology in Fluid Mechanics (RMFM - 2016) from July 14-16, 2016. Dr. B.V.S. Prasad, Professor & head, Department of Mechanical Engineering, IIT Madras., Dr. Athul Sharma, Professor, Department of Mechanical Engineering, IIT Bombay, Dr. Jyotirmay Banerjee, Associate Professor, Department of Mechanical Engineering, SVNIT, Surat were the resource persons for the workshop.



Dr. Saptarshi Das, from The Pennsylvania State University, delivered a talk on "Promise of 2D materials" on 29th July 2016.



Dr. Raj Madhavan, University of Morgland, delivered a talk on "Improving the quality of life for humanity via Humanitarian Robotics and Automation technologies" on 9th August 2016.



Dr. K. Ramesh, IIT Madras, delivered a talk on "Experimental analysis of crack tip stress field parameters- an overview" on 9th September 2016



8
Faculty
with PhD



Proposals
(133 Lakhs)
submitted

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DEPARTMENT OF ECE

OFFERING HIGH STANDARDS IN EDUCATION AND KEEPING
ABREAST OF LATEST INNOVATIONS & ADVANCEMENTS

The Department offers a B. Tech. program in Electronics and Communication Engineering and a M. Tech. degree in VLSI Design. The faculty team consists of experts from the industry and academia

The department is highly praised for its activities in the technical front, contributing highly towards the development of cutting edge technologies and professionals. While building a solid foundation of the fundamentals, the students are also exposed to emerging trends in the industry and are molded to be quality professionals of the future.

Electronics and Communication Engineering laboratories are equipped with state-of-the-art equipment and advanced software that enables the design of Very Large Scale Integrated (VLSI) circuits.

Several faculty members have received their graduate and postgraduate degrees from institutions of international repute such as Indian Institute of Technology, Indian Institute of Science, University of Texas at Austin and University of California, Irvine and have been working on research and development projects in firms across the globe.

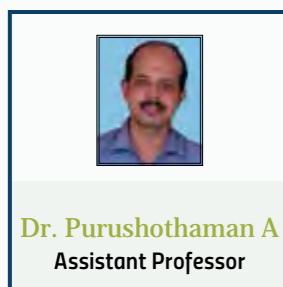
Our students actively participate in organizing various events such as technical workshops through the IEEE student chapter. Several faculty members and students are actively engaged in research and regularly publish their work in international journals and conferences.



Dr. Sundaraman Gopal (Chairperson)

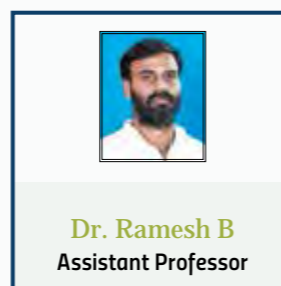
THE FEATHERS ON THEIR CAPS FACULTY ACHIEVEMENTS

Our well-qualified and globally experienced teaching faculty continues to prove their mettle.



Dr. Purushothaman A was the co-ordinator for the workshop on " CMOS Mixed Circuit RF VLSI Design" at IIT, Kharagpur during 19-25 September.

Dr. Purushothaman A was also an invited speaker for the FDP on "VLSI Design Fundamentals and Advanced" at College of Engineering, Perumon during July 20-25. He delivered a talk on



Dr. Ramesh B
Assistant Professor

Dr. Ramesh B was an invited speaker for the FDP on "VLSI Design Fundamentals and Advanced" at College of Engineering, Perumon during July 20-25. He delivered a talk on " VLSI Tesing".

INTERNATIONAL CONFERENCE PAPERS

- A. Purushothaman, "MINLP Based Power Optimization for Pipelined ADC", IEEE Computer Society Annual Symposium on VLSI(ISVLSI), Pittsburgh, USA, pp 508-511, July 2016.
- Neema C Babu; Sreedevi K Menon, "Design of a Open loop resonator based filter Antenna for WiFi applications" 3rd International Conference on Signal Processing and Integrated Networks (SPIN), pp. 236 – 239, 2016
- Jayakrishnan K C; Bhuvana Nair S; Sreedevi K. Menon, "Analysis of Metamaterial based band pass filter" 3rd International Conference on Signal Processing and Integrated Networks (SPIN), pp. 232 – 235, 2016.
- Deepthy M Vijayan; Akhil M; Sreedevi K Menon, "Patch loaded CPW fed monopole antenna" 3rd International Conference on Signal Processing and Integrated Networks (SPIN), pp. 246– 249, 2016.
- Sheema Joseph; Rahul Lal P; Sreedevi K Menon, "Substrate integrated waveguide based antenna with bi-directional radiation for radar applications", International Conference on Wireless Communications, Signal Processing and Networking (WiSPNET), pp. 95 – 98, 2016.
- Shruthi A; Bhuvana Nair S; Sreedevi K. Menon"ACPW fed onchip band stop filter for filtenna applications" 2015 IEEE Applied Electromagnetics Conference (AEMC), pp. 1 – 2, 2015
- Jayakrishnan V M; Sreedevi K Menon, "Circular patch antenna based planar crossover" 3rd International Conference on Signal Processing and Integrated Networks (SPIN), pp. 250– 254, 2016
- Jayakrishnan V M and Sreedevi K Menon, " Realization of Butlermatrix for Beamforming in Phased Array System" IEEE International Conference on Advances in Computing and Communications 2016 (ICACC-2016), Cochin, 6 - 8, September 2016

INFRASTRUCTURE UPGRADATION DURING THE PERIOD JUL- SEP 2016

IT & COMMUNICATIONS

ICTS is the IT & Communication Services provider of Amritapuri Campus. Constantly innovating and bench-marking itself to the best in its class, ICTS always has in mind the best interest of students and teachers.



Increased WiFi capacity to cover more number of devices.



150 new computers added to the computer labs.



High performance computing lab for Computer Science research.



Upgrade of switching backbone to 10 GBPS.



New Cloud Platform for data storage.



Integrated software for IT operations.



Formulated QA team to ensure operating standards are met.



Hostel Management System - being developed indigenously



CIR ACTIVITIES

DURING THE PERIOD JUL- SEP 2016

Honing the talents and skills of our students to prepare them for the industry tomorrow.

PLACEMENTS

During this quarter the number of corporates that visited the campus were 33 and 299 of our students got placements. 18 corporates had offered a salary level of Rs. 5 LPA. While the highest offer was CTC: 14.35 LPA (by CISCO)

TRAINING PROGRAMS, TALKS AND OTHER EVENTS

- Career guidance session for Amrita Vidyalayam students from Devangare and Karwar. (Date: 11-08-2016)
- Two days special skill development training program for students by Career launcher team. (09-09-2016 to 10-09-2016)



Talk by Ms. Rajshree Bhaje, National President, Junior Chamber International India for Commerce & Management students. (10-08-2016)



101 village internship presentation: 200+ students and staffs poured out their feelings as memories of their 101 village internship



Invited talk by the CEO of Kessinger Publishing at Amrita University of MBA. An entrepreneur who entered the world of business at the very young age of 18, Roger Kessinger talked about entrepreneurship and management.



Indian Navy Career awareness session by Captain Shinodh Karthikeyan (30-09-2016)



Invited talk by Suresh Aravind, Worldwide Vice President at Johnson & Johnson addressing ASB Amritapuri students.



Amritian Road to Excellence, Summer Internship Day Program. (06-09-2016)

Certificate distribution for Summer internships in Web Development & Contributions to FOSS, Android App, Industrial Applications in Mechanical Engineering, Industrial Applications in Electrical Engineering (Amrita Nano Solar Labs), Raspberry Pi & Robotics training and Entrepreneurship and Business skills training for Commerce and Management students. Total 210 students attended the workshops held during Summer vacation.



Amrita Vishwa Vidyapeetham becomes the first University in Asia to sign an MOU with Wiki To Learn, a platform for collaborative textbooks. Wiki To Learn organization mainly aims at providing free, collaborative and accessible textbooks to the whole world. It's a project under KDE and based on MediaWiki. Wiki To Learn has collaborated with around 25 Universities around the globe. The MOU has been signed by Dr. Jyothi S N Principal, Amrita School of Engineering, Amrita University, Amritapuri Campus along with Bri. Biju Kumar in coordination with the Srijan Agarwal, Core Developer at Wiki To Learn and a rising senior of FOSS at Amrita Club.

2016 CONVOCATION - RANK & MODEL LIST

Over the years our students have proved themselves to be shining examples of scholastic brilliance combined with a natural flair for fine arts and extracurricular activities. We are proud to list the rank and merit holders as presented below.

Roll Number	Name of Graduating Student	CGPA	Rank	Medal
Computer Science & Engineering				
AM.EN.U4CSE12027	Nagireddy Eepsita Reddy	9.69	Second Rank	Silver Medal
AM.EN.U4CSE12011	Athira Lekshmi C V	9.68	Third Rank	
AM.EN.U4CSE12501	Surya Seetharaman	9.56	Seventh Rank	
AM.EN.U4CSE12134	Pranav P (1699/179)	9.49	Eighth Rank	
AM.EN.U4CSE12041	Shilpa S Kavasseri (1698/179)	9.49	Tenth Rank	
Electronics & Communication Engineering				
AM.EN.U4ECE12147	Vaishnavi V	9.65	Third Rank	
AM.EN.U4ECE12105	Akshay Krishnakumar	9.61	Fourth Rank	
AM.EN.U4ECE12131	Meka Juneeth Kumar	9.52	Fifth Rank	
AM.EN.U4ECE12050	Vignesh V Menon	9.46	Seventh Rank	
Electrical & Electronics Engineering				
AM.EN.U4EEE12002	Abhijith S Nair (1740/182)	9.56	First Rank	Gold Medal
AM.EN.U4EEE12145	Sreeraj S	9.42	Fourth Rank	
AM.EN.U4EEE12001	Abburi Manoj Chowdary	9.33	Eighth Rank	
AM.EN.U4EEE12041	Shilpa Sankar S	9.22	Ninth Rank	
AM.EN.U4EEE12010	Anusree Manoharan	9.19	Tenth Rank	
Mechanical engineering				
AM.EN.U4ME12130	K G Sachin	9.94	First Rank	Gold Medal
AM.EN.U4ME12105	Akash Arjun	9.87	Second Rank	Silver Medal
AM.EN.U4ME12128	Jeethesh Pai U	9.76	Third Rank	
AM.EN.U4ME12119	Aswin G Nath	9.72	Fifth Rank	
AM.EN.U4ME12054	Saraschandran K	9.71	Sixth Rank	
AM.EN.U4ME12152	Sanjay Jose (1751/181)	9.67	Seventh Rank	
AM.EN.U4ME12157	Shamim Akhtar (1750/181)	9.67	Eighth Rank	
AM.EN.U4ME12063	Sreeram C Lal (1740/181)	9.61	Ninth Rank	
Computer Science & Engineering				
AM.EN.P2CSE14009	Sinsha K P	9.95	Second Rank	Silver Medal
AM.EN.P2CSE14007	Minnu Mohandas	9.6	Fifth Rank	

Very-large-scale integration (VLSI)				
AM.EN.P2VLD14012	Jia Mary Koshy	9.89	Second Rank	Gold Medal
AM.EN.P2VLD14022	Sruthi Upendran	9.79	Third Rank	
AM.EN.P2VLD14004	Anjali Gopinath	9.59	Fifth Rank	
Power & Energy				
AM.EN.P2PR14009	Haritha G	9.53	First Rank	Gold Medal
Thermal & Fluid				
AM.EN.P2TF14009	Firaz E S	9.85	First Rank	Gold Medal
AM.EN.P2TF14003	Anith T A	9.67	Second Rank	Silver Medal
E-Learning Technology				
AM.EN.P2ELT14006	Srilekshmi M	9.94	First Rank	Gold Medal
Control & Instrumentation				
AM.EN.P2CIN14022	Deepa V	9.98	First Rank	Gold Medal
AM.EN.P2CIN14001	Achala Prasad	9.94	Second Rank	Silver Medal
Wireless Networks & Applications (WNA)				
AM.EN.P2WNA14017	Remya M	9.45	First Rank	Gold Medal
AM.EN.P2WNA14022	Vishnu S	9.21	Second Rank	Silver Medal
Master of Computer Applications (MCA)				
AM.EN.P3MCA13015	Renjitha R	9.45	First Rank	Gold Medal
AM.EN.P3MCA13019	Sandeep S	9.4	Second Rank	Silver Medal
AM.EN.P3MCA13008	Greeshma Sasi	9.27	Fourth Rank	
AM.EN.P3MCA13001	Ajesh	9.19	Sixth Rank	
AM.EN.P3MCA13025	Surya T K (963/110)	8.75	Eighth Rank	
AM.EN.P3MCA13027	Varsha J (962/110)	8.75	Ninth Rank	

LIBRARY

The campus library is spacious, well-equipped and well-planned having a wide array of books, e-books, journals and videos providing vital support towards teaching, learning and Research.

Updates in the last quarter				
	500+ new books	25 renewal subscriptions	NPTEL videos added	Updated alert & documentation services

Amrita WNA

THE AMRITA CENTER FOR WIRELESS NETWORKS AND APPLICATIONS

Integrating technology with holistic solutions.

The Amrita Center for Wireless Networks and Applications (Amrita WNA) <<https://www.amrita.edu/center/awna>> co-hosted an Indo-US workshop with Lockheed Martin Space Systems and CANEUS International on Sensors and Small Satellite Technology for Disaster Management (SSTDM 2016) from August 17th -19th, 2016. The goal of the workshop was to discuss the needs and challenges of SSTDM technologies with a vision to create a collaborative Indo-US SSTDM Center of Excellence. The workshop was co-funded by the Indo-US Science and Technology Forum (IUSSTF) and was inaugurated by Sri A.S. Kiran Kumar, Chairman of the Indian Space and Research Organization (ISRO), on August 17th, 2016 at Amrita University's Kochi campus. During the workshop, the Amrita-Keysight Advanced Wireless Communication Lab was launched by Padma Sri M. Chandradathan, Scientific Advisor to the Chief Minister of Kerala, on August 18th, 2016 at the Amritapuri campus. The lab was established in alliance with U.S. Keysight Technologies and the Ministry of Earth Sciences (MoES), Government of India.

More than 40 experts from the U.S., U.K. and India were present at the global workshop. Some prominent guests included, Ms. Wanda Sigur, Vice President of Lockheed Martin Space Systems; Dr. Milind Pimprikar, Chairman of CANEUS International; and Dr. Helen J. Reeves, Science Director of Engineering Geology, British Geological Survey.

Ms. Wanda Sigur, V.P., Lockheed Martin Space Systems, said, "With the ongoing revolution in electronics and materials, small satellites and miniaturized sensors have the promises of complementing the larger traditional weather satellites that we depend upon globally. This would lead to new ways to improve forecasts and predictions for weather and other natural disasters. The SSTDM 2016 Conference has played a critical role in bringing the international community

together in India to review and discuss the advances in these technologies and form collaborations that benefit all nations."

Speaking about Amrita's role in developing technology for disaster management, Dr. P. Venkat Rangan <<https://www.amrita.edu/faculty/venkat>>, Vice Chancellor of Amrita University, said, "Amrita University has initiated several programs under the guidance of our Chancellor, Sri Mata Amritanandamayi Devi, for disaster risk reduction. The University has a decade of experience in the design, development, and deployment of wireless-sensor network systems for monitoring and delivering early warnings of landslides. These Amrita systems have been deployed both in the Western Ghats of Kerala and the Himalayas. We have also developed a system known as OceanNet, an affordable Internet and multilevel opportunistic Backhaul Network for fishing vessels at sea, and another system for the management of urban flooding using crowd-sourcing. This international workshop, SSTDM 2016, is another Amrita initiative to provide a forum for international and national scientists, researchers, faculty, policymakers, etc, to come up with a futuristic plan for disaster risk reduction and ultimately save lives."



International Workshop on Sensors and Small Satellite Technology for Disaster Management – SSTDM 2016

AMRITA CENTER FOR CYBER SECURITY SYSTEMS AND NETWORKS

DURING THE PERIOD JUL- SEP 2016

Technological innovations to foster a secure society.

Amrita Center for Cyber Security Systems and Networks promote partnership between industry, academia and the government to foster innovative research and education in Cyber Security, thus enhancing knowledge, deriving solutions, benefiting society and mitigating risks

CONGRATULATIONS
Won Scholarship of 11 lacs for pursuing Dual Degree Masters Program at VU, Amsterdam

SCHOLARSHIP
₹11 LACS

Archa, Sreelakshmi, Nayana, Krishna, Shredha, Hari

Six students of MTech Cybersecurity Systems and Networks have been awarded VUFP Scholarship of rupees 11 Lacs (15000 Euro) each for pursuing dual degree masters program at VU Amsterdam, Netherlands. The students will get an MTech degree from Amrita University and MS from VU Amsterdam (Spending 1 year each at Amrita and VU). Congratulations to Sreelakshmi, Archa, Krishna, Nayana, Shredha and Hari

PLACEMENTS

Jithin Chandra Mohan and Manuel Antony of 2nd year MTech Cybersecurity Systems and Networks got placed at CISCO and CERNER.



CONGRATULATIONS
Anjana and Paulson

BOSCH

Securing 1 year internship at Robert Bosch (spending their final year of MTech at Robert Bosch)

Anjana and Paulson of 2nd year MTech Cybersecurity Systems and Networks students got selected for Internship at Robert BOSCH. They will be spending their final year of MTech at BOSCH.

POSTERS & PRESENTATIONS

Bithin Alangot presents at ACM MobiHoc 2016. The poster on "Context Aware Dynamic Log Chunking"



CONFERENCE/WORKSHOP/SYMPOSIUMS

INTERNATIONAL SUMMER SCHOOL ON INFORMATION SECURITY AND PROTECTION- AUG 2-6 2016

AMRITA
7th International Summer School
INFORMATION SECURITY & PROTECTION

KEYNOTE SPEAKERS

- Dr. Christian Collberg, University of Arizona, United States
- Dr. Bharat Jayaraman, University at Buffalo, USA
- Dr. Yuan Gu, JADETA, Canada
- Dr. Arun Lakhotia, University of Louisiana, United States
- Dr. Roberto Giacobazzi, University of Verona, Italy
- Dr. Prabhaker Mateti, Wright State University, USA
- Dr. KP Soman, Amrita University, India

HANDS-ON TRAINING TOPICS:

- Software Protection
- Android Security
- Formal Methods
- Industrial Challenges
- Binary Analysis
- Code Attacks
- Machine Learning
- Theory and Practice

AUGUST 02-06 2016

www.amrita.edu/cyber-school

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cyber@amrita.edu
www.amrita.edu/cyber
facebook.com/amritacyber



7th International Summer School on Information Security and Protection was held at Amrita University, Bengaluru campus from Aug 2-6, 2016. This included hands-on security training from international experts in much sought after topics such as Software protection, Android Security, Machine Learning and others. Here are some scenes from the inauguration event. The event was organized by Amrita Center for Cybersecurity Systems and Networks.

TALKS & ADDRESSES

SOPHOS VICE PRESIDENT VISITS AMRITA UNIVERSITY - SEPT 21 2016

Amrita Center for Cyber security Systems and Networks invited Mr. Hemal Patel, Senior Vice President of Sophos Operations in India, to Amrita University, Amritapuri Campus. He gave a talk to the students and faculty members about how to be successful in life and career



TALK ON ANDROID SECURITY AUG 17 2016

Dr. Prabhaker Mateti from Wright State University, Ohio delivered a talk titled "Android Security" on Aug 17th, 2016. He presented a balanced view regarding the status of Android Security. Amrita Center for Cybersecurity Systems and Networks thank Dr. Mateti for sharing his knowledge with our students. #TechTalk #Cybersecurity #Android





Amalabharatham cleanup campaign
Sabarimala



Amalabharatham cleanup campaign
Amritapuri



Amalabharatham
cleanup campaign
Vattickavu



Amalabharatham cleanup campaign
Pampa



Amalabharatham cleanup campaign
Amritapuri



Amma's Birthday



Amma's Birthday



Amma's Birthday

Talents on Display - Our students have it all !

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