

Bi-yearly Newsletter

December 2011

Volume 11



Amal Jyothi College of Engineering

Kanjirapally, Kerala

Prayerful greetings to MAR GEORGE CARDINAL ALENCHERRY



Prayerful greetings to Your Beatitude Mar George Cardinal Alencherry, Head of the Syro-Malabar Church, on your well-deserved elevation to Cardinalate, as a Prince of the Church. Amal Jyothi bows before Your Beatitude in reverential gratitude for your remarkable leadership and support, and your magnanimous visit to our campus in September 2011.

earty congratulations to Fr. PRINCIPAL

Hearty congratulations to our dear Principal Rev. Dr. Jose Kannampuzha on being awarded Doctorate by Mahatma Gandhi University. The theme of his research paper was 'Industrial Requirments for and Competence of Engineering Graduates – A Study' and the Guide Dr. Mahajan P. Mani, Professor of Gandhian studies, MG University.



Rev. Dr. Jose Kannampuzha belongs to a rare race of educators who hold that mediocrity is a vice to be done away with. Rigours of a decade-long sacerdotal training chiseled his sensibilities and studiousness enabling him to clinch the first rank in B.Tech in Mechanical Engg from, Calicut University in 1986. Continued his winning spree by' standing first in M.Tech exam too, this time from IIT, Khargpur, with Farm Machinery and Power as his specialization. Fr. Jose was chosen to guide the destinies of the Jeevan TV channel as its Founder – Managing Director, followed by the Principalship of Amal Jyothi – the one and the only priest-principal of all the 120 Engineering Colleges in Kerala.

Amal Jyothi family is so proud of you, father, the cynosure of a thousand eyes among the upper echelons of technical education.

AMAL JYOTHI - SRM JOINT VENTURE



Amal Jyothi College of Engineering, Kanjirappally, and SRM University, Chennai, are joining hands in multi-displinary domains such as Nuclear Engineering, Management studies, Herbal Research, Green Computing etc. An MOU regarding this will be signed shortly. Steps in this regard have been initiated in the inaugural function of the Amal Jyothi Centre for Advanced Research (ACAR), by Dr. M. Ponnavaikko, Vice Chancellor, SRM University, Chennai. He also released the "International Journal on Emerging Research Areas, another Amal Jyothi initiative.

The meeting was presided over by Rev. Dr. Jose Kannampuzha, Principal, Mr. T.K. Jose, IAS, Chairman, Coconut Development Board, Govt. of India, delivered the Keynote address and released a compilation of research papers published by Amal Jyothi faculty and students.

Rev. Fr. Varghese Parinthirickal, Manager, Dr. M.K. Radhakrishnan, Director ACAR, Sri. P.G. George Adviser, Academic Stratogies, Dr James Jacob, Dean, Research and Prof. V. I. Cherian, Dean, Academic, spoke on the occasion.





Foundation stone for the new Automobile block was laid by Rev. Fr. Varghese Parinthirickal on 29 November 2011. Rev. Dr. Jose Kannampuzha and hostel Directors were present on the occasion.

Amal Jyothi emerges winner at Tech Top



Degree Controls MD Rajesh Nair handing over the Tech Top 2011 Trophy to the winning team of Amal Jyothi College of Engineering, Kanjirappally

Amal Jyothi College of Engineering, Kanjirappally, bagged the first prize comprising a merit certificate and a purse of Rs 1 lakh for its project-'LOW-COST PEPPER SEPARATOR' at Tech Top-2011 held at Technopark, Trivandrum, a two - day innovation competition for engineering students across the country to identify budding technocrats, on July 29th and 30th. A consolation prize of Rs 20,000 was also bagged by Amal Jyothi for the project 'HELIOPED' This year, 216 teams from 14 states participated in the preliminary round, of which 58 teams were selected. From these 19 teams were shortlisted to demonstrate their projects in the final round. Out of this, three were from AMAL JYOTHI and two of these were developed through the IEDC scheme. Those are COCOBOT AND LOW COST PEPPER SEPARATOR.

ROBOTRYST - 2012



A two-day Robotics Workshop "RoboTryst-2012" was organized by the ECE Dept. in association with Robosapiens Technologies and E-Cell, IIT-Kharagpur, on 27th and 28th September 2011. Two teams from the College were selected to the finals. Around 200 students participated. Akas G Kamal and Anu Abraham Mathew, Asst. Professors, were the Coordinators of the program.

'Ekalavya@IIT Bombay'







Amal Jyothi is selected as one of the Remote centers of the e-OUTREACH Programme of IIT, Bombay, titled Ekalavya. This is a major initiative taken by IIT Bombay to work with leading Engineering Colleges across the country to enhance the teaching skills of the faculty in core engineering and science subjects, under the project, "Empowerment of Students & Teachers through Synchronous & Asynchronous Instruction." This initiative is a part of the National Mission on Education through Information and Communication Technology (ICT) supported by the Ministry of HRD. Under this project, IIT Bombay conducts two-week ISTE workshops through distance mode using the EDUSAT network of ISRO and the AVIEW software using internet, for live transmission at various remote centers across the country, during the vacation period in summer and winter.

Department of CSE organized a two-week ISTE workshop on Software Development Technique for Teachers of Engineering and Science Institute conducted by 'Ekalavya@IIT Bombay' Prof. K.S. Sunil was the coordinator.

Department of ECE organized a two-Week ISTE Workshop on Basic Electronics through Ekalavya-which was attended by 35 Faculty members. Mr. Syam Gopi and Mr.Geevarghese Titus were the coordinators.

Department of EEE organized a two-Week ISTE Workshop through Ekalavya- Prof. Robins Anto was the coordinator.

ISTE workshop on Thermodynamics (June 14th to 24th, 2011)

ISTE workshop on Solar Photovolatics-Fundamentals, Technologies and Applications (Dec 12th, 2001 to Dec 22nd, 2011)

ISTE workshop on Heat Transfer (Dec 2011)





An ISTE-Sponsored Short-Term Training Programme on Recent Advances in Civil Engineering was organized by the dept. from 6 to 10 Dec 2011 focusing on recent trends in the fields of structural engineering, environmental engineering, transportation engineering and finite element methods. The programme was inaugurated by Rev. Dr. Jose Kannampuzha and the keynote address was delivered by PadmaShri G Shankar

GUERNICA 2011



Depts of CSE and MCA along with Deepika Children's League and Zen Technologies, Kanjirappally, conducted a digital painting competition 'GUERNICA 2011' on 12 Oct 2011.

Hearty Welcome

Dr. K.G. Samuel, hailing from Pathanamthitta, began his career at Bhabha Atomic Research Centre, Bombay (1968). He joined Indira Gandhi Centre for Atomic Research, Kalpakkam in 1975. He did MS and Ph.D. in Metallurgical Engineering from IIT, Madras, in 1995.He held various positions in the Metallurgy and Materials Division, IGCAR and participated in R& D activities related to fast reactor materials in Tensile, Creep, Fatigue, Fatigue crack growth and Fracture Mechanics.

Dr. Samuel was deputed to Interatom, Germany (1987-88) to study the influence of dynamic sodium on creep, low cycle fatigue and fatigue crack growth behavior of stainless steels. He served as Visiting Professor of Mechanical Engg at Nagaoka University of Technology, Japan (1996) and conducted a course on High Temperature Materials.

He has visited major testing machine manufacturing firms like INSTRON, ESH, DARTEC, and RUMUL in the UK and Switzerland for operational training in servo hydraulic and resonant fatigue test systems.

Dr. K.G. Samuel has 41 journal publications in national and international journals and 12 conference proceedings publications to his credit.





Dr. K.G. Samuel

from Amal Jyothi Campus.

Several companies such as UST Global, IBS, HCL and Syntel visited the campus and selected a good number of amalites.

EEN REVOLUTI

India Today Says "Amal Jyothi Campus is situated on the agrarian hinterland and is perennially leafy"





STAFF

Textbooks/ chapters

Dr.Soney C George authored a textbook 'Engineering Chemistry and Environmental Science 'for S1 B.Tech students of M.G University published by S.Chand & Co, New

Dr. Soney C George co-authored a chapter 'Manufacturing of Multiphase Polymeric Systems' (chapter 5) published in the HANDBOOK of Multiphase Polymeric Systems (volume 1) by John Wiley & Sons 2011.

Prof. Ajith G S,AP, CSE published the second edition of text book 'C For You'

- Dr. Jippu Jacob, HOD, ME conducted a class on 'Innovation, Ideas, and Patenting' on 15.11.11 during the FDP on 'Entrepreneurship' organized by the IEDC of the College and the NSTEDB under the DST Govt. of India. He led a class on 'Innovation: A Case Study' on 19.11.11 for students of S1/S2 (2011-12) participating in the 'Entrepreneurship Awareness Camp'.
- Prof. Manoj T Joy HOD, CSE, participated in National Faculty workshop on ERP mission project under NMEICT, MHRD, held at Amritapuri campus, Amrita Vishwa Vidyapeetham on 13,14 Aug 2011. He also served as a team member for 'Vidyalaya Appointment Committee meeting' held in Jawahar Navodaya Vidyalaya, Kottayam, on 01/09/2011.
- Fr. Rubin Thottupuram AP, CSE published a paper titled 'Discovering, Reasoning - Constraint Communities in Black Pepper SLN', in SEEC, Kingston University, London-July 2011.
- Prof. Arun K. S., AP. CSE, presented a paper 'A machine-learning approach for fingerprint-based gender identification' in IEEE, Digital Object Identifier: 10.1109/RAICS.2011.6069294. Mr Arun and Mr. Jerin Thomas, AP, CSE, published 'An Automated Mail Sorter System using SVM Classifier', in IJCA, Digital Object Identifier: 10.5120/3909-5488
- Ms. Bindu S Moni, AP, CSE, attended National workshop on "Enhancing Research Skills in Information Technology" organized by School of Information Science & Technology, Kannur University 23-24 Sept.
- Mr. Jinson Davis, Mr. Jerin Thomas, Ms. Shelly Shiju George and Ms. Ashji S Raj, AP, CSE, attended a 2-week ISTE workshop on basic electronics from 28 June to 8 July 2011.
- Ms. Anishamol Abraham, AP, CSE, and Ms. Anju S.S. AP, CSE, participated in a 2-day hardware workshop on 'System level programming' conducted by Dept. of CSE, FISAT on 15,16 Nov 2011
- Asst.Prof. SunishKumar OS, received the "Dada Saheb Dr. Ambedkar National Fellowship Award -2011" for his achievements in the field of education and cultural activities. This award is given by Bharathiya Dalit Sahathya Academy, New Delhi.
- Prof. Geevarghese Titus co-ordinated a 2-week ISTE workshop on "Basic Electronics" conducted by IIT Bombay, under the National Mission on Education through ICT (MHRD) from 28th June to 8th July in which 43 participants attended. (both external and internal).
- One-day seminar on "Advanced Course on VLSI Design" by Dr. M.K Radhakrishnan, on 24th June.
- Hands-on- training on Microwave Design software

STAFF TRAINING PROGRAMME



Inaugurated by Dr. V. Rajagopalan, Principal SSKV, Arts & Science College, Kancheepuram.

Faculty Development Pragramme on 'Entrepreneurship'

IEDC of the College conducted a 2-week FDP on 'Entrepreneurship' under the sponsorship of NSTDEB, Govt: of India, from Nov 14 to 26. This is a new initiative from among the Engineering colleges in Kerala on 'Entrepreneurship' .Faculty from various engineering colleges and industry participated. Prospective space tourist and industrialist Mr:Santhosh George Kulangara inaugurated the programme and eminent resource persons from industry, banking and management handled the sessions. Prof. Jose Antony, Prof. Vipin B, and Prof. Ajosh Abraham were the coordinators.



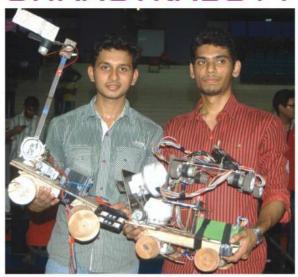
AWR Studio & HFSS was organized by the department for faculty members on 18.10.2011 and 09.11.2011 respectively.

- Ullas Thomas attended an international conference (Set-valuations, Signed Graphs and Allied Areas)about Graph Theory at Mary Matha Arts and Science College, Mananthavady, 2-6 August.
- Dr. Abin Manoj and Kavitha Jacob attended a national symposium on Nano Technology-NANOSTECH -2011, at Nirmala College, Muvattupuzha, on 1st and 2nd September 2011.
- Dr.Soney C George attended a workshop on wastewater treatment at NIT Trichi, from 29 to 31 September
 - N R Arun, Binil Gopinath, Gayathri V G and Gigi V V attended a training programme at CET, Thiruvananthapuram 21 - 26 Nov 2011.



CHEIVEMENTS

AMAL JYOTHI WINNING BY ANOTHER ROBOT IN NATIONAL LEVEL COMPETITION SHAASTRA2011



The mechanically operated robot named 'Lords' from Amal Jyothi clinched the title when it relentlessly cornered its opponent 'Black Pearl' with the audience at IIT-Madras chanting, "Go for the kill!".

On board the yellow bus that left the IIT main gate towards the heart of the campus, a group of visiting students were concentrating on taming a six-sided Rubik's Cube, while having an animated conversation about the events scheduled for day three of 'Shaastra 2011'.

Justin Thomas and Donny Baby, EEE S7, steered their robot to a clear victory. "We worked on this robot for a few weeks. We have been making robots for technical festivals but most have been one-fifth the size of this one," says Justin, pointing to his 25 kg robot. "The pneumatic cylinder filled with compressed air is what powers the key' feature," he says about a ground-level contraption attached to the robot used to uproot the opponent.

ENGINEERS' DAY CELEBRATIONS



Talk on 'Engineering Preparedness for Disaster Mitigation' by Mr. P.Jayan, Sr. Vice President, IBS Technologies, on 15 September 2011, for students of ECE. The talk was organized as part of Engineers' Day celebrations by the Department and Association of ECE Students.

Intra Department Paper Presentation and Project Presentation Competitions were organized as part of Engineers' Day celebrations.

ENTREPRENEURSHIP AWARENESS CAMP

With a view to creating awareness among students about various facets of entrepreneurship, IEDC organized an entrepreneurship awareness camp from 18th to 20th of November 2011. It was sponsored by DST,Govt. of India through NIMAT projects 2011-12. This programme mainly concentrated on the first year students to inspire innovativeness and entrepreneurial nature in them right from the beginning. Prof. Shiju Geroge was the coordinator of this programme.

STUDENTS' CHAPTERS OF PROFESSIONAL BODIES

To provide students better exposure to the activities of professional bodies and more interaction with the experts from industry, Students' Chapters of the following professional bodies have been started Institution of Engineers (India) (IEI), and Indian Institute of Production Engineers (IIPE). Prof. Roshan Kuruvilla is appointed Staff Advisor of the Mechanical Engineering Division of these two Students' Chapters.

WORKSHOPS/SEMINARS

- A series of LINUX workshops were conducted for B.Tech (CSE & IT), M.Tech (CSE) and MCA students by the Dept. of CSE sponsored by the Spoken Tutorial Project – "Talk to a Teacher" of IIT Bombay, funded by MHRD, Govt. of India. Hardware and Networking Club of CSE is selected as the Best Technical Club for 2010-2011
- IEDC sanctioned Rs. 1 lakh for the project 'Web Doctor.' Saran S. Nair, Sebin Jose, Josekutty Abraham, Jijo K Jose, Karthik M (S7 CSE) are the project members, mentored by Prof. Manoj T. Joy, HOD CSE.

TECHNOLOGY- BASED ENTREPRENEURSHIP DEVELOPMENT PROGRAM (TEDP)

Innovation and Entrepreneurship Development Centre (IEDC) of the College conducted a Technology-Based Entrepreneurship Development Program (TEDP) sponsored by Dept of Science and Technology (DST) through NIMAT PROJECT- 12, Govt of India, for the students of Civil and Mechanical Engineering from Dec 11 to Jan 12-2012

- For the Civil Engg students, the programme was Civil Modeling and Animation through software practice (Auto CAD, REVIT, 3DSMAX)
- For the Mechanical Engineering students the programme was Product Modelling Through software practice (Auto CAD, CATIA, ANSYS & Rapid prototyping)

A screening test was done to shortlist the applicants. 25 students each, from both the departments were selected for this program. It was inaugurated by Mr. Isaac Joseph, Managing Director of Lunar Rubbers Pvt Ltd , Thodupuzha. The Program includes various activities like Software trainings, Management Inputs, Business Idea Development

Summer School on Embedded System Technologies (SSEST) was conducted for S7 ECE from 20th June to 9th July 2011.

Seminar on "Networking" by Inter Networkz, Kottayam, was conducted for S5 ECE on August 2011.

AWARDS AND DISTINCTIONS

Asha Mathai and Arun Chand of S7 ECE were awarded a special prize for "Best Technical Project" at TechTop, an all India project contest held at Technopark, Trivandrum.

Nithin Raju Chandy of S7 ECE participated in "Topcoder Open 2011" at Hollywood, Florida, USA.

Hashim Shanavas Khan(S5 ECE), Deepak (S5 ECE) and Shinto M. Jose - S5 CSE B were members of the cricket team that won the M. G. University South zone Runner up 2011-12.

Binesh Mathew & Deepu Kurian (S7 ECE), Jithin J.(S3 ECE) were part of the Chess Team that won the M.G. University South zone Championship 2011-12.

Adarsh Mathew Thomas, Githin V (S5 CSE A) --- second prize in the M.G. University South Zone Inter-collegiate Table Tennis.

STUDENTS

NSS camp

This year's special camp was conducted at Carmel CMI School, Pulianmala, near Kattappana, from 27th to 30 December. The camp was inaugurated by Mr. Johny Kulampally, President of Kattappana Panchayat, in a meeting presided by Fr.Tom Pandapallil, Principal of the School. Around 60 first year students and 15 senior students attended the camp at the supervision of the faculty Mr. Jose Antony and Ms Mithuna Jyothi. M/s Sherin Sam, Sijo George, Anoop C.V. and Arun Thomas also participated. In morning sessions they organized social services like maintenance work of road to Kadukka city, community visits and teaching the public on the adverse effects of plastics. They also visited Navadarsanagram, a De-addiction Centre. In the evening sessions classes were organized. All the participants really enjoyed the camp.



Blood Donation Camp

A blood-donation camp was organized at the Holy Cross Hospital, Koovapally, on 14th October, 2011, in association with the Association of Mechanical Engineering, the Royal Blood Cell, and the National Service Scheme. Prof. Jose Antony and Prof. Roshan Kuruvila coordinated the programme.

Seminar on IPR

A One-day technical seminar on "Role of Intellectual Property Rights on Education" was organised on 19 Aug. It was sponsored by Kerala State Council for Science Technology and Environment,Govt of Kerala. Prominent resource persons led sessions related to patenting and Intellectual property rights. This program was co-ordinated by Prof. Anoop C. V. of AUE and Asst. Prof. Amal S. Siju of ME.

International Year of Chemistry Celebrations- 2011 DBS organized a quiz competition for S1S2 students as part of celebrations of International Year of Chemistry at the College. Ms Kavitha Jacob, AP, led the session supported by S1S2 class teachers, mentors of various clubs and faculty members of DBS.

Second prize in the M.G. University South Zone Inter-collegiate Cricket



Runner-up in the M.G. University South Zone Inter-collegiate Table Tennis



DST PROGRAMMES AT AJCE

DST sanctioned the following programmes to Amal Jyothi through DST-NIMAT Project 2011-12; with a financial assistance of Rs-6,42,500/-

- I) Two technology-based Entrepreneurship Development Programmes (TEDPs)-for students
- a) Civil Modelling and Animation through software practice (Auto CAD, REVIT, 3DSMAX)
- b) Product Modelling through software practice (Auto CAD, CATIA, ANSYS & Rapid prototyping)
 - II) One Faculty Development Programme (FDP)
 - III) Five Entrepreneurship Awareness Camps (EAC)- for students

INTERNATIONAL YEAR OF CHEMISTRY CELEBRATIONS- 2011



STUDENTS COUNCIL







AFSAL, A. KAREEM MF - S8 III rank in MG University.



Jilt Sebastian secured III rank in MG University. He has been awarded the 'Crown of AJCE' for the academic year 2010-11.



JILT SEBASTIAN - ECE







ANET JOSE EEE - S8



JILT SEBASTIAN ECE - S8



JISMON JOSEPH CSE - S8



CE-S8

SHILPA ELSA ABRAHAM DIVYA SADANANDAN IT - S8



CSE - S6



JEENU MATHAI CE - S6



SURYA SURESH IT - S6



AHANA SHAJI ECE - S6



EEE - S6



DIVYA MARIA JOY RICHU GHEEVARGHESE SAMUEL



ROSELIN JOSEPH CSF - S4



ELVI MARIA CE - S4



ATHIRA E V IT - S4



ANCY EPHREM ECE - S4



PILLAI SARESH EEE - S4



PRINCE VINCENT ME - S4



TONY AUGUSTINE



AJIL JOSE



NITHIN THOMAS SAM







PRAISON DANI GEORGE CHIKKU MAREETA JOHN ASHA MARY RAIJU



SREENATH S ME - S2



JUBIN ABRAHAM AUE - S2





NUCLEAR ENGINEERING

Nuclear energy is a prime source of energy, its benefit being mainly in the power sector. India is adding 20 GWe by 2025, from pressurized heavy water and fast breeder nuclear reactors with mutual cooperation from major countries. The synthesis of nuclear energy requires engineers having educational background covering nuclear physics, nuclear chemistry, material science and radiation science besides basic engineering and technology.

The major thrusts for nuclear engineers are research and development, designing, building, monitoring, and operating nuclear plants. Nuclear engineers' study includes nuclear fission/fusion, the interaction and maintenance of nuclear fission/fusion systems and components namely nuclear reactors, nuclear power plants, nuclear submarines and/or nuclear weapons, medical and other applications of radiation, nuclear safety, nuclear fuel, nuclear structural materials, and/or other related technology areas like nuclear-waste disposal, nondestructive testing, nuclear proliferation, and the effect of radioactive waste or radioactivity on the environment.

Nuclear engineering students become true multi-disciplinary specialists, with acquired knowledge in mechanical, materials science, chemical, or electrical/electronic engineering. The four-year B.Tech course leads them to opportunities in various fields of energy engineering. This flexibility allows both employers and engineers to either meet specific staffing needs in new technologies or shift to other related fields. Today, nuclear engineering is a dynamic and fast expanding field. Nuclear engineers are hired by utility companies, reactor vendors, the Nuclear Regulatory Commission, consulting firms, universities, the national laboratories, and various other companies in the area of health and medicine with some interest in the nuclear field.

> Dr. K.G. Samuel Professor of Mechanical Engineering (In view of the proposal to start a new B. Tech course in Nuclear Engineering)



Published by: Fr. VARGHESE PARINTHIRICKAL, Manager, Amal Jyothi College of Engineering Kanjirapally, Kerala-686 518 Phone: 04828 305500, 305555, Fax: +91 4828 251136 Editor: P. C.Thomas (HOD, EEE) Editorial Team: Dr. Sebastian Narively (HOD, Humanities) Thomas Paul Karippaparambil (PRO) & P. Radhakrishnan (EEE) www.amaljyothi.ac.ln







