



In Altum...

The NBCEET News Letter

Mar Baselios College of Engineering and Technology
Mar Ivanios Vidyanagar, Nalanchira, Thiruvananthapuram – 695 015.



13th Annual ISTE Kerala Student Convention Querencia 2014



Her Excellency Smt. Sheila Dikshit,
Hon'ble Governor of Kerala inaugurates the programme

Ms. Arathy Krishnan
won the First Rank in B.Tech.
Information Technology Degree
Examination, University of
Kerala, 2014.



MESSAGE FROM THE BURSAR



Fr. Wilson Thattaruthundil

The Thirteenth generation of B.Tech. graduates has arrived at the MBCET and the first generation of its Post-Graduates has left the Campus on the successful completion of their task on the Campus. They are taking the pride along with them that they have been instrumental in the evolutionary growth process of the College. In fact they have contributed to the transformation of the College into a Post-Graduate Institute of Higher Learning at the Professional Level.

MBCET is growing as a big tree, extending its roots into the society offering its shade to seekers of professional knowledge. A humble beginning of the Past strengthens the Present. It motivates us and gives us energy to look into the Future so as to shape it. As the dictum goes, "Slow and steady wins the race". Such a move, a cautious step, deriving energy from the Past, with concern for Future will make us the preservers of tradition and culture. Thereby we sustain humanity. Growth evidently entrusts us with this responsibility. Sustenance of the quality achieved and growth attained can be done only through effective, meaningful and vigilant research-oriented activities. We have to become aware of the need of the Present and the Future. Our respect for values and tradition should set the norms for shaping and preserving the values that retain us as human beings, especially in a context where global competition makes us increasingly self-centered, compromising all that is human. It is our responsibility to preserve our humanness in the onslaught of mechanization. Preserve Nature, all that is in Nature and recognize God in the other. Let us thus strive to remain as the 'noblest of all creations' in the global village, as the custodians of culture and civilization. Let us not be mere keepers of 'pass-words', leaving everything to the machine, without pledging our memory, noble emotions and the intellect. Let us awake to fulfill the responsibility of being the preservers of an earth where love flourishes.



PRINCIPAL'S DESK

Dr. T. M. George

An overwhelming desire to be successful is a positive step towards life. Such a mindset is in fact the needed foundation, or the first step to achieve success. However, what needs to be kept in mind is that success does not come with a sudden jump. It comes to those who crawl, build up the needed momentum to walk and then proceed to run.

Success is not a jackpot. It is the output of years, months and days of little and little labour. As we commence a new academic year, start putting in little efforts that you can towards your goal. Success despises the last minute approach. To take an example, if an examination lies ahead of you, do not wait till the last minute attempting to do all the learning. Maybe by doing so you might get past the pass marks or settle for something similar. But to reach excellence, we have to put small efforts each day to build you up for the success you desire.

Success is a concept which is better understood and easily achieved with patience and consistency. To put it in the words of Robert Collier, "Success is the sum of small efforts, repeated day in and day out". Remember, perseverance always pays. If it is supported by proper time management, effective planning, meaningful goal-setting, one can experience the contentment of a successful life.

Editors Note

Introspection makes man sensible. It paves way for prudence. If people at the helm of affairs lack the virtue of prudence, the society they mould and lead will comprise of impulsive and intolerant people devoid of the power of endurance. Anarchy and chaos will result in, as we are witnessing today, in all walks of life. Thanks to Science and Technology, development today is alarming. Alongwith development, a consumerist culture also has evolved and it is thriving. It is a culture of the gratification of desires. This has become the culture of the so called New Age. Products of nuclear families, conditioned by pampering, insist on having everything instantaneously. Self-reliance becomes elusive in such a context. Humaneness is alienated. Patience and endurance are forsaken. The insistence to achieve targets entails cut-throat competition, a trait of the consumerist culture. This mistaken notion of professionalism has forsaken harmony. Genuine professionalism, based on introspection and prudence should promote the pursuit of order in life. It should transform human beings capable of creating order out of disorder, harmony out of disharmony. They have to be the real reformers.

Rather than being mere job-seekers or good job-givers, professionals will be prompted by such a pursuit, to be the makers of history or rather, the makers of Future.

Dr. George Zachariah

MIT - Tata Workshop on Innovation and Design

MBCET played host to yet another edition of the esteemed MIT-Tata Centre Workshop in Innovation and Design from July 20-26, 2014. The workshop comprised of three different tracks - Qualcomm Mobile & Wireless, Health & Living and Toy Design. A crew of 7 instructors from MIT, USA handled the tracks, headed by Mr. Rajesh M. Nair, Founder & Chairman of Degree Controls Inc. and TechTop (Founder). The other instructors were Ms. Mily Kurian, Ms. Kate, Mr. Prashant Patil, Mr. Paul Anand, Mr. Kshitij Marwah and Mr. Rohan. Around 67 participants from across the country registered and participated in this workshop of which around 15 students were from MBCET.

The workshop was formally inaugurated on July 21st by Smt. Aruna Sundararajan, IAS, (Managing Director, KSIDC, Ltd.)



The Faculty coordinators were Ms. Jomole Joseph P. (Asst. Prof, Dept of EEE) and Mr. Jinu Baby (Asst. Prof, Dept of ECE) with Mr. Aneesh Kumar K.T. (M.Tech student, EEE Dept) providing the requisite technical assistance. 24 student volunteers from various branches assisted the Faculty Members ensuring smooth and efficient progress of the workshop. On the final day (26th July), the participants from all the tracks got an opportunity to make a pitch and present their project ideas at the TechTop platform.

TechTop 2014



TechTop 2014, the 9th National Innovation Challenge, to identify and recognize the best innovative talents from among the students of Engineering Colleges/Institutes of India was held on July 25-26, 2014. Out of the 192 entries received from Engineering Colleges and other Institutions in the Country, 17 projects were selected and exhibited.

Students from various schools and colleges in the city and the Public too, poured in to watch the exhibition. The 13 final projects which got entry to the final round of the TechTop National Innovation Challenge 2014 were exhibited for two days. They ranged from a low-cost solar panel which relies on slaughter house waste to an upper-limb exoskeleton for rehabilitation and power augmentation. All of them tried to devise a system to address the issue identified.

Mr. P. H. Kurien, the Principal Secretary, Dept. of Information Technology, Govt. of Kerala, after inaugurating the two-day exhibition on Friday 25 July, said TechTop was a platform for the Youth to think beyond their textbook curriculum and showcase their innovative projects.

‘Affordable refreshable Braille Display’ designed by Indian Institute of Technology, Delhi was adjudged the best project at the Contest – TechTop 2014. The prize instituted by Degree Controls comprised a cash award of Rs.1 lakh was awarded to the winners by **Dr. K. Sivan, Director – LPSC, ISRO** at the valedictory function on 26 July, 2014.



First prize winners of TechTop 2014, **Ankit Kumar and Pulkit Sapra**, receiving the award from LPSC Director Dr. K. Sivan on Saturday



The second prize of Rs.50,000/- was won by **Mar Baselios College of Engineering and Technology**, Trivandrum for their project 'Neosense'.

Neosense, the project that won the second prize measures the oxygen saturation level in the blood of an infant. If it goes below a threshold value an alarm is produced and its accurate haptic feedback system revives the patient during an emergency situation. This device can considerably help in bringing down infant mortality rate. The project has been developed by Joshua Mathew, Kavya Suresh, Vivek Joy, Reshmy Prasad, and Jojoy John Varghese of Mar Baselios College of Engineering and Technology while the third prize of Rs.30,000/- went to the Krishna Institute of Engineering and Technology, Ghaziabad for its project 'Insecticide Sprayer'.



Automatic Pesticide/Insecticide Sprayer team

Consolation prizes of Rs. 20,000 each were given to **Amal Jyothi College of Engineering**, Kottayam for their project 'Virtual- I' and Rajagiri School of Engineering and Technology, Kochi for its project 'A Low-Cost Multi-Purpose Solar Powered Protection Device from Electrocution'. Sahrdaya College of Engineering & Technology, Thrissur won the All-Women's Team Award, which fetched a prize money of Rs.20,000/- for the project 'Blue Green Solution for Energy Crisis and Pollution'.

Prof. V. K. Damodaran, Jury Chairman of the contest said, "Judging the 13 projects was very challenging at the same time interesting for the Jury. Majority of the projects showcased were focused on Humanitarian Technologies. Students who have participated this year have taken efforts to explore new sectors with their projects was also notable."

Dr. K Sivan, Director, LPSC, ISRO was the Chief Guest at the award ceremony held at MBCET as part of the concluding ceremony of TechTop 2014. **Mr. N. Remesh, General Manager, NABARD** presided over the function. **Dr. T. M. George, Principal, MBCET; Mr. Rajesh M. Nair, Founder, TechTop; Dr. K. C. Chandrashekharan Nair, TBI Registrar and COO, Technopark; Mr. N. T. Nair, Charitable Trust Member, TechTop and Mr. Moossa C. Kandy, Chief Coordinator, TechTop** were also present at the valedictory function.

National Conference on Futuristic Technologies in Mechanical Engineering

The Department of Mechanical Engineering Mar Baselios College of Engineering & Technology, Trivandrum organized a National Conference on Futuristic Technologies in Mechanical Engineering (NCFT'14) on 22 & 23 August 2014. The Conference provided a forum for presenting and discussing innovative ideas and technologies related to the recent trends in "Mechanical Engineering".



The Conference was intended to enhance knowledge and to promote high standards in Technical Education by way of extending opportunities to the academicians, students and working professionals by providing a forum for sharing their knowledge, experiences, innovations and inventions. The Focus was on promising topics in Mechanical Engineering. The conference will be held every year to make it an ideal platform for people to share views and experiences in Mechanical Engineering and related areas. The Organising Committee included **Rev. Fr. Wilson Thattaruthundil**, Bursar as the Patron, **Dr. T. M. George**, Principal as Chairman, **Prof. K.M.Raju** as Convener and **Dr. Y.V.K.S. Rao** as the Organizing Secretary.

The 13th Annual ISTE Kerala Student Convention: Querencia 2014

Organized by MBCET

On behalf of the Kerala Section, the MBCET Student Chapter of the Indian Society for Technical Education (ISTE) hosted the 13th Annual Student Convention of ISTE Kerala on 29th and 30th August 2014. 'Querencia' is a Spanish word for the space within a bull ring, where after a fight the tired or wounded bull retreats to recharge before fighting again. The expression was chosen by the students to highlight the provision of a safe haven for participants to renew themselves and realize their true potential and genius.

The event began with the National Anthem and an invocation by Joanne Thomas and Sruthi Krishnakumar. The gathering was welcomed by the Principal, **Dr. T. M. George**. Ensuing was a layout of the convention by one of the Querencia Student convener, **Mr Shaun Sam Mathews**. **Prof. C. P. Sunilkumar**, Member of the State Management Committee of ISTE, presented a report on the growth of the ISTE Kerala Section. Major goals of ISTE at the National Level were presented by **Dr. S. Basil Gnanappa**, Ex-Secretary of ISTE. The key note address was given by **Dr. B. Anil**, Chairman, ISTE Kerala. **His Beatitude Moran Mor Baselios Cardinal Cleemis Catholicos**, the Major Archbishop of the Malankara Syrian Catholic Church and the Patron of MBCET gave the presidential address in which he applauded ISTE Kerala and MBCET for their fruitful endeavors. **Her Excellency Smt. Sheila Dikshit** underscored the need to enhance education with a creative mindset in this era of technology. She inaugurated



Hon'ble Governor receiving the memento prepared by **Aiswarya Raju Antony** S7 CE from the Cardinal.

the convention by lighting the nilavillakku along with the other guests. Other dignitaries present were Mr. V. A. Shamsudeen, Deputy Director, Curriculum Development Centre, State Management Committee Member and Rev. Fr. Wilson Thattaruthundil (Bursar, MBCET). The Organizing Secretary, Smt. Nidhi M. B., Asst. Prof., Mechanical Engineering Dept., who is also the Organising Secretary and SMC Member of the ISTE Kerala Section proposed the vote of thanks.

The following awards were presented on the occasion: are Best Student Chapter of ISTE Kerala to the Government College of Engineering in Thrissur, Student Chapter with Maximum Variety of Programmes to Mar Baselios College of Engineering and Technology, Best Emerging Polytechnic Student Chapter to the Government Polytechnic College in Kottayam, Best Emerging Student Chapter to Government Engineering College (Barton Hill) in Trivandrum, Student Chapter with Maximum new Memberships to Vidya Academy of Science and Technology in Thrissur and Student Chapter with Maximum Number of Programmes to Mohandas College of Engineering and Technology Trivandrum.

The cooperative, tireless and meticulous work of the students, in particular the Core Team, namely: E. A. M. Suhail (Programme Convener), Ani Sam Varghese (Technical Head), Gayathri J. (Event Co-ordinator), Tony A. George (Creative Design Head), Blessy Luis (Finance Head), Nithin Varghese (Invitation Head), Rohit Sankar (P. R. O.), Arjun Subramaniam (On-Stage Head), Nithin Raj (Creativity Head) and Nithin Sudarsanan (Lens man and essential core team persona), has to be mentioned specially.

Querencia had participants and could host no less than seventeen events, various paper presentations plus workshops on Animation and Android Programming. Additionally and of immense value will be a Leadership

Camp by ISTE resource persons. In seamless transition from the scholarly events, a cultural programme marked the end of the day on 29th.

On the second day, 30 August 2014, 17 events were completed along with 2 workshops and leadership camp. The chief guest of the valedictory function was **Dr. S. Sheela, Principal, CET**, and the meeting was presided over by **Dr. B. Anil, Chairman ISTE Kerala Section**. The other dignitaries attended include Ms. Nidhi M. B., Organizing Secretary of Querencia, Prof. C. P. Sunil Kumar, SMC, ISTE Kerala Section, Dr. T. M. George, Principal, MBCET. The Souvenir was received from Ms. Nidhi by Dr. S. Sheela and released by giving it to Dr. T. M. George. Student representative Arjun, presented the report on Querencia 2014. Seven best students from each chapter were awarded. The overall trophy of 13th annual ISTE Student Convention Kerala Section was bagged by GEC, Thrissur.

ISTE MBCET Chapter Won 2 Awards

- ◆ **Best Student Award for ISTE MBCET Chapter** was received by E. A. M. Suhail - S5, ME1 from Dr. S. Sheela, Principal, CET, during valedictory function held at Visveswaraya Hall on 30 August 2014 at 4 pm.
- ◆ **Best Chapter Award for Maximum Variety of Events.**



ISTE MBCET Chapter

ISTE MBCET Chapter celebrated ISTE foundation day with a session on Moulding Budding Engineers into Competent Professionals on 21 May 2014. The resource person was Prof. P. N. Mohan, HoD - CE, MBCET. Ms. Nidhi M. B., (Chairman, ISTE MBCET chapter and SMC member, ISTE Kerala Section) delivered welcome address with speaker introduction and detailed the formation of ISTE. Ms. Yamuna (Treasurer, MBCET-ISTE chapter) proposed the vote of thanks. Dr. Sakuntala S. Pillai (Dean, R&D,

MBCET), Prof. Paul Thomas (Dean PG, MBCET) presided over the function. Office bearers of student chapter, faculty chapter, teaching, and non-teaching staff were among the 31 participants who attended the event.



World Environment Day Celebrations

ISTE MBCET Chapter celebrated World environment day on 5th June 2014 by planting 5 saplings near civil block in the campus. 40 students and staff members gathered to make the event a success. "It has been our priority to create awareness among the masses about the importance of environment in our lives through our children," **Rev. Fr .Raju Parukoor** said while speaking during the function. Assistant Bursar Rev. Fr .Raju Parukoor expressing serious concerns over the deterioration of our environment highlighted its importance in our lives. He urged the authorities to involve more students to protect and preserve the environment.



Rubik Cube Competition

ISTE MBCET Student Chapter organized a Rubik Cube competition on 11th July 2014 at A304. Participants: Bharat

J - ECE- II; Binoy J - CS-II; Jijo Jose - CS-II; Navanith S.V. – EEE; R. Sreehari - ECE-II. The best performance was showcased by Bharat J. who could complete solving the cube in 50 seconds, followed by Jijo Jose who completed in 54 seconds. The event co-coordinators were Shaun (S5-ME), Nithin Sudharsan(S5ME), Amarish (S3-EE), and Aneeta (S3-CE).



Debate

ISTE MBCET chapter organized a debate session on the theme: "Richness brings Happiness" - Sheena Shaji (S5-ME), Aneeta (S3-CE), Amrish (S3-EE), Arjun (S5-EC), Gayathri (S5-EE) and Anandu (S3-ME) and Blesson (S3-ME). There were 5 groups who participated in the debate. The moderator was Sheena Shaji.

ISTE and NSS of MBCET jointly organised a session on MOTIVATION

The session was held on 5 July 2014. The Resource person was **Mr. Raju Mathews, Sr. Sub-Editor, Malayala Manorama**. There were 72 students altogether. The session was coordinated by Mr. Remil George Thomas, Ms. Nidhi M. B. and Mr. Jinu Baby.

Department of Civil Engineering

New HoD

Dr. Neethu Roy has taken charge as the HoD, CE Dept. since June 2014.

New Faculty Members

The following teachers joined the Department : Ms. Sonali Snehanjan



M.Tech. - Transportation Systems and Management, NIT Trichy, Mr. Akhil Muraleedharan, M.Tech. - Structural Engineering, VNIT, Ms. Sherin Mathew, M.Tech. - Structural Engineering, SRM University, Ms. Chandini Basu, M.Tech. - Transportation Engineering - NIT Calicut, Mr. Akhil Raj, M.Tech. - Structural Engineering, MBCET, Ms. Anjana Krishnan, M.Tech. - Structural Engineering, MBCET.

Achievements of Faculty Member

- Ms. Sonali Snehan secured gold medal for M.Tech in Transportation Systems and Management from NIT, Trichy.
- Ms. Anjana Krishnan secured first rank in Third Semester M.Tech Structural Engineering with CGPA 10.
- Ms. Jayasree S. presented a paper on “Admixed Recycled Aggregate using metakaolin” at KSCSTE, Pattom and the same was evaluated very good and advised to apply for patency.

Consultancy and Research

- Ms. Jayasree S. successfully completed the third year of her research work on “Corrosion Resistance of Blended Cement Concrete using Recycled Concrete Aggregates” under the sponsorship of KSCSTE
- Prof. P. S. Abraham is the Consultant Architect of Rain Water Harvesting Scheme at MBCET. Ms. Neema Therese and Ms. Sonali Snehan conducted the testing of various soil samples for the same during August 2014.

Paper Presentations and Publications

- Prof. P. N. Mohan presented guidelines to “GATE” preparation for the students from various Engineering Colleges at the Institute of Engineers, Trivandrum during August 2014. He delivered a talk on “Moulding Budding Engineers into complete professionals” as part of ISTE Founders Day celebrations on May 21, 2014.
- Ms. Neethu Roy, Venkaiah Chowdary and J. Murali Krishnan, published a paper on “Influence of Rest Periods on The Creep and Recovery of Asphalt Concrete Mixtures”, in the Proceedings of Colloquium on Transportation Systems Engineering and Management, at NIT Calicut, May, 2014.
- Ms. Parvathy U., published a paper on “Linear Static Analysis of Functionally Graded Plates using Spline Finite Strip Method”, in the Composite Structure -10 July, 2014.

- Mr. Akhil Raj S. R. won the Best Paper Award in Concrete Technology for the work on “Fresh and Hardened Properties of Concrete Containing Admixed Recycled Aggregate”, at the National Conference on “Furthering Aspirations in Civil Engineering Techniques (FACET’14)”, organized by the Government College of Engineering, Kannur - June 2014
- Ms. Anoja B. V. presented a paper on “Advancements in Geo-informatics” in the International Conference on Technological advancements and Green Governance at Sivaji College of Engineering on April 9, 2014.
- Ms. Jayasree S. and Mr. Akhil Raj S. R. / Anju Sam / Susan Abraham presented the following papers:
 - i. “Fresh and Hardened Properties of Concrete Containing Admixed Recycled Aggregate”, ‘National Conference on Furthering Aspirations in Civil Engineering Techniques (FACET’14)’, organized by Government College of Engineering, Kannur, June 2014.
 - ii. “Effect of Crushed Concrete Aggregate on The Fresh and Mechanical Properties of Self-Compacting Concrete”, ‘National Conference on Furthering Aspirations in Civil Engineering Techniques (FACET’14)’, organized by Government College of Engineering Kannur, June 2014.
 - iii. “Effect of Steel Corrosion on the Flexural Behaviour of Beams”, ‘National Conference on Emerging Technologies’, organized by Barton Hill College of Engineering, August 2014.
- Ms. Bindu Biju and Smrithi Cheriya presented the following papers:
 - i. “Response of High Rise Building during Wind Induced Vibration using Tuned Mass Damper”, National Conference on Emerging Technologies, organized by Barton Hill College of Engineering, August 2014.
 - ii. “Control of Structural Response of High Rise Building using Tuned Mass Damper”, National Conference on System Energy and Environment, organized by the Barton Hill College of Engineering - August 2014.
- Ms. Tisny D. B. and Abhinandh G. / Leena Nancy Michel / Arun Joy S. A. presented the following papers:

- i. "Mechanical Behaviour of Hybrid Fibre Reinforced Concrete", 'National Conference on Furthering Aspirations in Civil Engineering Techniques (FACET'14)', organized by the Government College of Engineering, Kannur - June 2014
 - ii. "Behaviour of Concrete Containing Copper Slag as Cement and Fine Aggregate", 'National Conference on Furthering Aspirations in Civil Engineering Techniques (FACET'14)', organized by the Government College of Engineering, Kannur - June 2014
 - iii. "Behaviour of Concrete after Partial Replacement of Cement and Fine Aggregate with Copper Slag", 'National Conference on Emerging Technologies', organized by the Barton Hill College of Engineering - August 2014.
 - iv. "Behaviour of Self-compacting Concrete with Partial Replacement of Cement by Silica Fume and Metakaolin", 'National Conference on Emerging Technologies', organized by the Barton Hill College of Engineering - August 2014.
- Mr. Arun V. M. Anisha G. S., Nithya Jacob, Nina Mary Beson and Shine A. Jayan presented a paper on "Production of Biogas from Paper Waste" which was presented at the International Conference on Technological Advancements and Green Governance at Sivaji College of Engineering on April 9, 2014.
 - Ms. Sreepriya P. S. and Archana J. Satheesh presented a paper on "Flexural and Durability Performance of Self Compacting Rubberized Concrete" which was presented at National Conference on Emerging trends at Barton Hill on August 2, 2014.
 - Ms. Jean Molly Simon and Deepthi Dennison presented a paper on "Effect of Metakaolin and Steel Fibres in the Flexural Behaviour of Reinforced Concrete Mix" at the 'National Conference on Furthering Aspirations in Civil Engineering Techniques (FACET'14)', organized by the Government College of Engineering, Kannur - June 2014.
 - Ms. Ansu Mathew and Deepa Varghese presented a paper on "Optimal Design and Placement of Viscous Fluid Damping using Scissor Jack Mechanism for Seismic Energy Dissipation in a Nine Storied Building" at the National Conference on Emerging trends at the Barton Hill on August 2, 2014.

Workshops attended by Faculty Members

- Prof. P. N. Mohan attended a National workshop at the College of Engineering, Trivandrum on "Industry Institute Awareness Programme" on May 23, 2014.
- Mr. Tom Mathew attended a workshop at the Marian Engineering College on "Structural Analysis for Indeterminate Structures" from 9 to 13 June, 2014.
- Ms. Jayasree and Ms. Nandini S. Nair attended a workshop at College of Engineering, Trivandrum on "Advances of Computer Applications in Civil Engineering" from 31 July to 2 August, 2014.

Student Achievements and Activities

- Ambili R G, M4SE won the Best Paper Award in Structural Engineering for the work on "Buckling Analysis of Functionally Graded Plates Using New Hyperbolic Shell Deformation Theory", at the National Conference on Furthering Aspirations in Civil Engineering Techniques (FACET'14), organized by the Government College of Engineering, Kannur - June 2014.
- Smrithi Cheriya, M4 SE won the best paper award in Civil Engineering for the work on "Control of Structural Response of High Rise Building using Tuned Mass Damper", at the National Conference on System Energy and Environment, organized by the Barton Hill College of Engineering - August 2014.
- Vivek Joy, S5 CE was part of the team that secured the second in TechTop National level competition in July 2014
- Aiswarya Raju Antony, S7 CE won the first prize for Collage competition at Kerala University Youth Festival
- Neethu Suresh, S7 CE won the second prize for Kerla Nadanam and third for group dance at Kerala University Youth Festival
- Annie Xavier, Lakshmy G. S. and Aiswarya Raju Antony, S7 CE, won the first prize in Rangoli competition in "Yagna Dhruva -14", a cultural fest organized by the LBS Institute.
- Anrupa S. Kumar, Sreelekshmi A., Sarah Jacob, Gowri Ganesh, S7 CE, won the first prize in Apparel Design Competition in Aagneya organized by the Barton Hill College of Engineering.
- Dennis Jose, Vivek Joy, Cyriac V. John, S5 CE, secured

first prize for Paper Presentation Competition conducted at the Barton Hill College.

- Asif N., Panchami, Arunima, Noufal, Jithin, S5 CE, secured first prize in Fashion Show at various colleges like NIT Calicut, SCT, Barton Hill College.
- Akshay Rajeeve, S5 CE, was part of team that secured runners-up trophy for St. Joseph All Kerala Football Tournament
- Parvathy R. S., Vivek Joy and Keerthi B., S5 CE, secured second in Model Making at Prayana.
- Anju M Mohan, Greeshma B. S., Reshma Sony, S5 CE, secured Second prize for Thiruvathira at Kerala University Youth Festival, 2014.
- Anju M. Mohan secured Third for Group Song at Kerala University Youth Festival, 2014.
- Greeshma B. S., S5 CE, third for Group Dance at Kerala University Youth Festival, 2014.

Department of Computer Science and Engineering

Changes in the Department

Prof. K. O. Koshy took over as the DEAN (Resource Planning) on 1 July, 2014.



Dr. R. Vikraman Nair took over as the Head of the Department.

Baselian NS2 Workshop 2014



A two day “Baselian NS2 Workshop 2014” was organized by the Department of Computer Science on 25 and 26 April 2014. The course focused on Introduction to NS2, OTCL wired, wireless, Addition of New Agent and a Queue in NS2 by recompiling NS2, Tracing analysis using trace graph, x graph and AWK Scripts. The sessions were handled by Sri. T. S. Pradeep Kumar, Asst. Professor, VIT, Chennai. 60 candidates from CS and EC departments completed the Course successfully.

Baselian Computing Workshop 2014 (BCW 2014)

The M.Tech. final year students of the Department of Computer Science & Engineering organized the ‘Baselian Computing Workshop’ (BCW 2014) on the 13 and 14 June, 2014. BCW 2014 was a two-day programme for 50 high-school students selected from 10 Schools in and around Trivandrum city. The workshop was inaugurated by **His Excellency Most Rev Dr. Samuel Mar Irenios, Auxiliary Bishop**, Archdiocese of Trivandrum. The goal of the workshop was to encourage the computing skills, especially the logical thoughts of students of ninth standard with a view to channelize their creative and logical abilities to become better, more ethical and highly insightful professionals. The sessions were handled by the final year M. Tech students. BCW2014 provided a lively, supportive and interactive environment, where students stretched their talents, discovered new strengths, and challenged themselves in the company of peers.



As part of this session, the students were introduced to the basics of Operating System, Algorithm & Programming, and Networks & Network Security. There was no registration fee for the participation. Two laptops were awarded as Excellence Award for the outstanding performers in the workshop. The winners were Vimal Joseph from St. Mary's HSS, Pattom and Amritha Nair M. S. from SNVHSS, Anad. A quiz competition was also conducted towards the end

of the workshop and the winners were awarded mementos and medals. Vimal Joseph, St. Mary's HSS, Pattom and Achu S. S., GHSS, Sreekaryam won the first prize in the quiz competition. The laptops, mementos and medals were distributed during the valedictory function presided over

by **Dr. Achuthsankar S. Nair, Hon. Director, Centre for Bioinformatics, University of Kerala**. The workshop was jointly sponsored by The Information & Public Relations Department, Govt. of Kerala, Electronics Technology Park (Technopark) of India, Thiruvananthapuram and MBCET.



Seminars and Courses organised by the Department

- An invited talk on the topic "Bootstrapping an organization through Technology" by Mr. Sandeep Bhaskar, an alumnus of MBCET was arranged for S8 students on 9 April 2014.
- An invited talk on the topic Cyborg World ("Cybernetic Organism" against Robotic Rebellion) by Prof (Dr) Andrews Samraj, Principal Scientist and Director of Advanced Science and Technology Research Centre – International, Chennai was arranged for the members of the Faculty and PG students on 20 June 2014.
- An Invited talk on the Topic "Project Selection for Computer Science Students" was arranged on 23 July 2014 for the students of final year B.Tech. and M.Tech.



The Speaker was Mr. Rajesh M. Nair, Chairman of Degree Controls, USA and founder of Tech Top.

Courses / Workshops Attended by Faculty Members

- Ms. Aswathy Ravikumar attended a one week workshop organized by IIITM-K on Cyber Security during March 24-28, 2014.
- Ms. Anitha Sandeep and Mr. Praveen G. L. attended a course on "Advanced Topics in Algorithms" organized by Department of Computer Science and Engineering,

CET from 18 to 22 February 2014 under the STTP Scheme of the Directorate of Technical Education, Govt. of Kerala.

- A course on "Research methodology" was attended by Ms. Sarada B. S. at IIITMK, Thiruvananthapuram in January 2014.
- Prof. K. O. Koshy, Prof. Vikraman Nair, Prof. Raju K. Gopal, Ms. Anitha Sandeep, Mr. Shibu V. S., Ms. Sunitha Krishnan, Ms. Anupriya Vysala, Ms. Aswathy Ravikumar, Ms. Anjali C., Ms. Sarada B. S, Ms. Gayathri B. S., Ms. Krishna Girish, Ms. Jisha Jose, Ms. Sonia Joseph and Mr. Binu Jose attended the Baselian Workshop 2014 -NS2 held on 25- 26, April 2014 at MBCET.
- Ms. Sarada B. S. attended a workshop organized by the Infosys Campus Connect at Lourde Matha College of Engineering and Technology, during 4- 6 June, 2014.
- Ms. Anitha Sandeep, Ms. Anupriya Vysala, Ms. Sunitha Krishnan, Ms. Merin Kuriakose, Ms. Sarada B. S., Ms. Aswathy Ravikumar, Ms. Anjali C., Mr. Robin Joseph and Mr. Shibu V. S. attended the ISTE workshop on "Computer Programming" during 16- 21 June, 2014.
- Ms. Merin Kuriakose, Ms. Aswathy Ravikumar, Ms. Jisha Jose, Ms. Anitha Sandeep, Ms. Anupriya Vysala and Ms. Krishna Girish attended the ISTE Main Workshop on Computer Networking during June 30- July 5, 2014.
- Ms. Tessy Mathew attended a workshop on Research Methodology at VIT, Vellore, in January 2014 and also attended a Data Analysis workshop at IIITMK, in March 2014.

- Mr. Shibu V. S. attended a one week ISTE Workshop for Coordinators on Computer Networking conducted by IIT, Bombay in Mumbai during 05-09 May, 2014.
- Mr. Binu Jose attended a workshop on Cloud Computing during 15-16 March, 2014 organized by IIITM-K, Trivandrum in association with C-DAC, Chennai and Association for Computing Machinery (ACM).

Paper Presentations and Publications

- Ms. Aswathy Ravikumar and Veena Vijayan (M3) have published a paper on "Study of Data Mining Algorithms for Prediction and Diagnosis of Diabetes Mellitus", in the International Journal of Computer Applications (0975-8887), Vol. 95 - No.17, June 2014.
- Ms. Aswathy Ravikumar and Deepthi S. (M3) have published a paper on "Computation Methods for the Diagnosis and Prognosis of Heart Disease", in International Journal of Computer Applications (0975 - 8887), Volume 95- No.17, June 2014.
- Ms. Jisha Jose, Tharian Tom, Deepthi Mariam Thomas, Kiran Meera George and John Mathew (S8 students) have published a paper on "AUTO-LEADING ROBOTIC CONVOY", in International Journal of Science, Engineering and Technology Research (IJSETR), Volume 3, Issue 4, April 2014.
- Ms. Tessy Mathew published a paper on "NSE Stock Index prediction using NARX and SVM Techniques" in Elsevier Proceedings, June 2014 and "Modelling the Risk Averse Behaviour of Investors - A Cellular Automata Technique using expert recommendation for safe trading" in Theoretical Computer Science (in press).

Student Achievements

- Shini Renjith (M4) led the team of M4 students in organizing the BASELIAN COMPUTING WORKSHOP 2014 (BCW 2014) at MBCET in June 2014.
- Ananth L., and Zachariah Mathews (both of S7) and Kenny John Jacob (S5) won the first prize in the HACKATHON - Web Application Development Contest organized by Envestnet in May 2014.
- Kavya Suresh (S5) was member of the team which came Runner Up in the TechTop 2014 Project Competition held in July 2014.
- Ali Saahil (S3) won second place for Vrindavadyam and third place for Ganamela in the Kerala University Youth

Festival. He also won the second place in the Fashion Show CULT A WAY organized by SCT College of Engineering, the first place in the Fashion Show at Ivano Fest organized by Mar Ivanios College and the first place in the Fashion Show at Heera College Fest.

- Neeraj Nirmal (S3) won the first place in the Fashion Show at All Saints College. He also won the third place in Cartoon Drawing at Baselian Fest.
- Joshin Jacob (S3) won the second prize for Vrindavadyam and third place for Ganamela in the Kerala University Youth Festival.
- Anjuparvathy L. B. (S3) won the first prize for Skit and 2nd prize for Keralanadanam in the Kerala University Youth Festival.
- Joann Rachel Jacob (S3) won the 2nd prize for Western music - Vocal (Group) in the Kerala University Youth Festival.

Department of Electrical and Electronics Engineering

ISTE SRM Sponsored STTP

On Advanced Control System Design & Applications

The Department of EEE of Mar Baselios College of Engineering & Technology was one among the 50 colleges all over India, and one among the two colleges from all over Kerala selected by ISTE-SRM to conduct the STTP on Advanced Control System Design & Applications.

The course focused on introducing Modern Control System Design Techniques, with insight and intuition in dealing with real control Engineering problems. The course also spot beamed to applying knowledge of classical, modern and optimal methods for control system design. The State-space Design Methods including state feedback and State Observer were also introduced in this course. It was also intended to investigate how Nonlinear Systems could be analyzed, and set the stage for analysis and design tools to handle these types of systems. The course included practical sessions to provide hands on experience in various design aspects.

The Programme was inaugurated on 9 July 2014 at 9.30 a.m. by **Chev. Dr. Koshy M. George, Deputy Director, VSSC** in the presence of Fr. Raju Parukoor, Asst. Bursar, Dr. T. M. George, Principal, & other dignitaries.



Ms. Manju G., Co-ordinator of the STTP welcomed all the dignitaries, participants and the staff-in house. Dr. T.M George delivered the Presidential Address and Chev. Dr. Koshy M. George gave the inaugural address. The felicitation was given by Ms. Nidhi, Chairman, ISTE-MBCET Chapter, Ms. Sojy Rajan, Co-ordinator of the STTP proposed the vote of thanks.

A total of 25 candidates comprising 17 external candidates and 8 internal candidates successfully completed the course and they were awarded certificates.



New HoD

Ms. Elizabeth Varghese, Associate Prof., took over as the HoD, Electrical and Electronics Engg. Dept.



Achievement of Faculty Member

Ms. Anu Gopinath secured Second Rank for M.Tech. Degree, Kerala University Examination in Electrical and Electronics Engineering with specialization in Control Systems



Research Activities by Faculty Member

Ms. G. K. Nisha submitted her PhD dissertation in "Power Electronics and Drives" under Kerala University in June 2014.



Faculty Inclusion

Ms. G. K. Nisha, Ph.D. and Ms. Jomole Joseph P, M.Tech. joined the Department in May 2014, on completion of their study leave.

Dr. D. P. Balachandran and Prof. A. S. Shajilal, retired from College of Engineering, Trivandrum joined the Department in June 2014.

Research Papers/Publications

- Ms. G. K. Nisha, Mr. Z. V. Lakaparampil and Ms. S. Ushakumari published a paper entitled "Four quadrant operation of Field weakened FOC Induction motor drive using Sliding Mode Observer" in the Transactions on Engineering Technologies: Special volume of World Congress on Engineering, Springer Publications 2014.
- They published another paper entitled "Effect of Leakage Inductance in Torque capability of Field Oriented Controlled Induction Machine in field weakening region" in the International Conference on Advances in Engineering and Technology, Singapore - March 2014.
- Mr. Aswin R. B. presented the following papers:
 1. "Application of Artificial Intelligence in Detection of Skin Cancer from Dermoscopic Images " in the International Conference on Emerging Trends in Electrical Engineering (ICETREE 2014) held at TKM College of Engineering, Kollam.
 2. "Hybrid Genetic Algorithm - Artificial Neural Network Classifier for Skin Cancer Detection" in International Conference on Control, Instrumentation, Communication and Computational Technologies, July 2014, (ICCICCT) held in Noorul Islam University, Kumaracoil, Tamil Nadu.
 3. "Implementation of ANN Classifier using MATLAB for Skin Cancer Detection" in International Journal of Computer Science and Mobile Computing.
- Mr. Aneesh Kumar K. T., Ms. B. Prasannakumari, Ms. Elizabeth Varghese published the following papers:
 1. "Simulation Topology and Control Methods for Wind Energy Conversion Systems" in the International Conference on Emerging Trends in Electrical Engineering ICETREE_2014.
 2. "Space Vector PWM based two level Inverter Topology for Wind Energy Conversion Systems" in International

Journal on Advanced Electrical and Computer Engineering, IJAECE, Volume_1, Issue_1, 2014, pp 28-34.

Students' Achievement

Academics:

- Shahida L R (M4, PCD) and Dr. T. M. George - "Variable Structure Control of a Buck Converter for the MPPT of a Photovoltaic System", in the proceedings of the 3rd National Conference on Emerging Technologies, pp 156-161, 1-2 Aug 2014 at Government Engineering College, Barton Hill, Trivandrum.
- Sreelekshmi T. (M4, PCD) and Ms. Shalu George K., published a paper entitled "Comparative study of Common Mode Voltage Reduction by different PWM Techniques for a Five phase BLDC Motor" in the 3rd National Conference on "Emerging Techniques", 1-2 August, 2014 at Govt. Engineering College, Barton Hill.
- Sreelekshmi T. (M4, PCD) and Ms. Shalu George K., published a paper entitled "A Study of Harmonics in Space Vector PWM with Reduced Common Mode Voltage for Multiphase Drives & Space Vector based Hysteresis Current Controller for Multi-Level Inverter", in the proceedings of the 7th National Conference on Recent Trends in Electronics World (RETREW 14), pp-21-22, 17th March 2014.
- Renu V. (M4, PCD) and Ms. Surasmi N. L., published a paper entitled "Adaptive Compensation for Lower Order Harmonics in a Grid connected single phase PV inverters" in 3rd National Conference on Emerging Technologies (NCET 2014), pp 162 – 168, 1-2 August, 2014 at Govt. Engineering College, Barton Hill.
- Arya R. (M4, PCD) and Ms. Sheenu P., published a paper entitled "A Five Level Inverter with Reduced Harmonics" in the proceedings of the 3rd National Conference on Emerging Technologies (NCET 2014), pp 149 – 155, 1-2 August, 2014 at Govt. Engineering College, Barton Hill.
- Arya R (M4, PCD) and Ms. Sheenu P, published a paper entitled "A Five Level Inverter with Reduced Harmonics" in the proceedings of 2nd International Conference on Current Trends in Engineering & Technology (ICCTET 2014), pp 328 – 331, 8th July 2014.
- Anila Prabha (M4, PCD) and Ms. Soumya A. V., published a paper entitled "Improving the Performance of a Wind Energy Conversion System using Z Source Inverter and MPPT Controller" in the proceedings of 3rd National Conference on Emerging Technologies (NCET 2014), pp 241 - 245, 1-2 August, 2014 at Govt. Engineering College, Barton Hill.
- Anila Prabha (M4, PCD) and Ms. Soumya A. V. published a paper entitled "Direct Drive Axial Type Wind Energy conversion system with Z source Inverter & Modified space vector modulation" in the proceedings of 2nd International Conference on Current Trends in Engineering & Technology (ICCTET 2014), pp 366 – 369, 8th July 2014.
- Ancy A. George (M4, PCD) and Mr. F. R. Rejish Babu published a paper entitled "Analysis and Simulation of PI and Fuzzy Controlled Multilevel Inverters fed BLDCM with Position Feedback" in the Conference Proceedings of International Conference on Current Trends in Engineering and Technology, ICCTET 2014, pp 321-326.
- Sreedevi K. J. (M4, PCD) and Ms. C. Sojy Rajan, published a paper entitled "A New Pulse Width Modulated PFC Zeta Converter Fed Sensorless BLDC Motor Drive with Position Feedback" in the International Journal of Science and Research, Vol.3, Issue 7, July 2014, pp-723-729.
- Sreedevi K. J. (M4, PCD) and Ms. C. Sojy Rajan, published a paper entitled "An Interleaved Boost Converter with Zero Voltage Transition fed BLDC Motor Drive", in the proceedings of the 3rd National Conference on Emerging Technologies (NCET 2014), pp- 215-220, 1st and 2nd August 2014.
- Seemol S. S. (M4, PCD), Ms. Sandhya P. published a paper entitled "Synchronverter Based Control for Three Phase Grid Connected Inverter", in the National Conference on Emerging Technologies, pp 204-209, 1-2 Aug 2014 at Government Engineering College, Barton Hill, Trivandrum.
- Vinaya P. George (M4, PCD) and Ms. Arya Gowri G, published a paper entitled "DTC & FOC Control Strategies for BLDCM" in the International Journal of Technology and Research Advances (IJTRA), Volume of 2014 issue VII.
- Vinaya P George (M4, PCD) and Ms. Arya Gowri G, published a paper entitled "A new DTC based BLDCM

driven EV “in the International Conference on Emerging Trends in Electrical Engineering (ICETREE -14), pp 208-212, ELSEVIER publications.

- Greeshma V. Bhas (M4, PCD) published a paper entitled, “A New Flyback Continuous Conduction Mode for AC Module Applications” in the Proceedings of South Asian Research Centre, ICEECE, 2014.
- Sarika (M4, PCD) published a paper entitled “Comparison of Direct Torque Control of Two Level Fed Three Phase Induction Motor with Conventional and Sinusoidal Pulse Width Modulation Schemes” in the International Conference in Current Trends in Engineering and Technology, ICCTET 14.
- Sarika (M4, PCD) published a paper entitled “Comparison of Direct Torque Control of 2 level and 3 level Neutral Point Clamped Three Phase Induction Motor”, in the National conference on Emerging Technologies, NCET 2014.
- Vinay P (M4, PCD) and Ms. Manju Ann Mathews, published a paper entitled “Modelling and Evaluation of MPPT Techniques based on a Ćuk Converter,” in the International Journal of Engineering Research & Technology (IJERT), Vol. 3 Issue 5, May – 2014, pp. 947 – 952.
- Vinay P (M4, PCD) and Ms. Manju Ann Mathews, published a paper entitled “A Fuzzy Based PV Fed Brushless Dc Motor,” in the International Journal of Research in Engineering and Technology (IJRET), Volume: 03 Issue: 05, pp 401 – 407.
- Abhijith A A, Aida Anna Oommen, Prakash Thomas Francis, Ruby Rajan, Varun S Muraleedharan (S8, EEE), Prof. M. K. Giridharan and Ms. Archana A. N., published a paper entitled “Performance Assessment of 100 kW Solar Power Plant Installed at Mar Baselios College of Engineering and Technology” in the International Journal of Emerging Technology and Advanced Engineering, Volume 4, Issue 6, June 2014.

Extracurricular Activities :

- Aju Joy (S7, EEE) got placed in MuSigma Company in the campus placement drive held on July 2014.
- Reshmy Prasad (S7, EEE) was the Student Coordinator of MIT-Tata Centre Workshop in Innovation and Design from 20-26 July, 2014 held at MBCET. The following

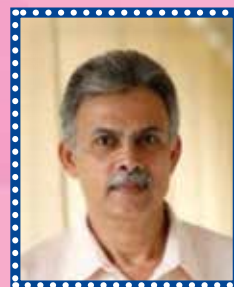
members of S7 EEE were the volunteers of the event: Anandu S., Sidharth S. and Sreedee Menon V. P.

- Reshmy Prasad (S7, EEE) was a part of the wining team in the TechTop Project Competition. She secured the second prize for the project entitled “Neosense – Apnea Detector for premature babies”.
- Reshmy Prasad (S7, EEE) and Philip Jithin Paul (S7, EEE) were chosen as the Joint Secretary and Sports Secretary in the College Senate Election held on July 2014.

Department of Electronics and Communication Engineering

Changes in the Department

Prof. S. Viswanatha Rao
has been appointed
Vice Principal



Ms. Jayasree M. J., Associate Prof.,
has taken charge as the
Head of the Department.



Research Activities by Teachers

The following staff members have registered for Ph.D. with Dr. Sakuntala S. Pillai as their Guide:

Prof. S. Viswanatha Rao, Ms. Swapna P. S., Ms. Yamuna K. Moorthy

Publications :

- Ms. Swapna P. S., Dr. Sakuntala S. Pillai, “Survey on Joint Uplink/Downlink Resource Allocation in OFDMA Systems”, International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) e-ISSN: 2278-8875, p-ISSN: 2320-3765, Volume 3, Issue 5, May 2014.
- Roselin Raju, Mr. Arun P. S., “Video Coding based on SSIM”, International Journal of Engineering Trends and

Technology (IJETT), e-ISSN: 2231-5381, p-ISSN: 2349-0918, Volume 10, April 2014.

- Charutha S., Ms. M. J. Jayashree, "An Integrated Brain Tumor Detection Technique", International Journal of Research in Advent Technology, Volume 2, Issue 5, May 2014.
- Jobin Varghese, Mr. S. Viswanatha Rao, "Management of Energy in Wireless Sensor Networks with Energy-Starving Sensors", IOSR Journal of Electronics and Communication Engineering (IOSR-JECE) e-ISSN: 2278-1676, p-ISSN: 2320-3331, Volume 9, Issue 2 Ver. IV (Mar – Apr. 2014), PP 81-85
- Ms. Dhanya Devarajan, Dr. Sakuntala S. Pillai, "Optimization of Laser Satellite Communication System through Link Budget Prediction", IEEE International Conference on Information Communication and Embedded Systems (ICICES), held at S. A. Engineering College, Chennai, February 2014.
- Jobin Varghese, Mr. S. Viswanatha Rao, "Performance Analysis of Synchronous and Receiver Initiated MAC Protocols under Varying Traffic Density over Wireless Sensor Networks", IEEE International Conference on Control, Instrumentation, Communication and Computational Technologies (ICCICCT), held at Noorul Islam University, 10-11 July, 2014
- Jobin Varghese, Ms. Luxy Mathews, "Low Power Area Optimized Novel Architecture for Software Defined Radio in FPGA", IEEE International Conference on Advanced Communication Control and Computing Technologies (ICACCCT), held at Syed Ammal Engineering College, Chennai, May 8-10, 2014.
- Ms. Ancy S. Anselam, Dr. Sakuntala S. Pillai, "Performance Evaluation of Code Excited Linear Prediction Speech Coders at Various Bit Rates", IEEE Sponsored International Conference on Computation of Power, Energy, Information and Communication (ICCPEIC), held at Adhiparasakthi Engineering College, Chennai, 16-17 April, 2014.
- Ms. Lani Rachel Mathew, Ms. Ancy S. Anselam, Dr. Sakuntala S. Pillai, "Analysis of LD-CELP coder output with Sound Exchange and Praat software", IEEE International Conference on Advanced Communication, Control and Computing Technologies (ICACCCT), held at Syed Ammal Engineering College, Chennai, May 8-10, 2014.

- Ms. Lani Rachel Mathew, Ms. Ancy S. Anselam, Dr. Sakuntala S. Pillai, "A Study of Low Bit-Rate Linear Prediction based Speech Coders for Indian Dialects", International Conference on Control, Instrumentation, Communication & Computational Technologies (ICCICCT), held at Noorul Islam University, 10-11 July, 2014.
- Lani Rachel Mathew, Ancy S. Anselam, Dr. Sakuntala S. Pillai, "Performance Comparison of Linear Prediction based Vocoders in Linux Platform", International Journal of Engineering Trends and Technology (IJETT), ISSN: 2231-5381, Volume 10 Issue 11- April 2014.
- Akhil A. Vijay, Mr. Anoop K. Johnson "An Integrated System for Tracking and Recognition using Kalman Filter", International Conference on Control, Instrumentation, Communication & Computational Technologies (ICCICCT), held at Noorul Islam University, 10-11 July, 2014.

Seminar/Conferences attended by FacultyMembers

"Four days Workshop on Embedded System Design", organized by TEQIP held at LBS, Poojappura, from March 2nd to March 6th, 2014. Staff attended: Ms. Ann Mary Alex, Mr. Nandan S. & Ms. Poornima S.

"NS2 workshop", organized by Department of Computer Science, Mar Baselios College from April 25-26, 2014

Staff attended: Mr. S. Viswanatha Rao, Ms. Deepa P. L., Ms. Yamuna K. Moorthy, Ms. Poorna R. Prabhu.

Achievements of Faculty

Ms. Arathy C. Haran secured first rank with gold medal for M.E. in Communication Engineering from Anna University



Achievements of Students

- **Jijina N. of M4** TCE received the Best Paper Award for the paper entitled "Power Efficient Design of Mobile Terminals Using Wave Shaping Matrix Precoding" in the International Conference on Control Instrumentation Communication and Computational Technologies (ICCICCT) organized by the Department of Electronics and Instrumentation, Noorul Islam University, 10-11 July, 2014.
- Joshua Kochuthundiyil Mathew of S7 EC was a part of the team that won the first runners up in MIT TATA



CENTRE workshop for their project ‘Apnea Detector for Neonates’.

- Juby Mathew of S7 EC was part of the group that won first prize in Kerala University Skit competition.
- Vivek Sureshkumar and Smilu Sunny of S7 EC received People’s Choice Award in the NASA Space Apps Challenge held at Startup Village, Kochi from April 11th to 13th, 2014.
- Meenu Joseph of S7 EC was part of the group that won the 3rd prize for Margamkali in Kerala University Youth Festival.
- Shruthi Geetha of S7 EC was part of the group that won the 2nd prize for Thiruvathira and 3rd prize for Group Dance in Kerala University Youth Festival.
- Gopika M. S. of S7 EC won the 1st prize for English Elocution and English Debate in Kerala University Youth Festival.
- Athira Krishnan R of S5 EC1 won 2nd prize in Kuchipudi, 2nd prize in Mohiniyattom and 3rd prize in Bharathanatyam in the All Kerala BSNL Cultural Meet held at Kollam on 25 July, 2014.

Extracurricular Activities

EC Association :

- Organized a talk on “Active Learning, Motivation and Creative Thinking” by Prof. Sivaramakrishnan Narayan for the S5 EC students.

IEEE Activities :

- Organized a one-day workshop on “Circuit Simulation using PSPICE” for the second year students at MBCET on July 19th, 2014. A total of 66 students attended.



- Organized a two day workshop on “Digital Computing” on June 21st and 22nd. A massive crowd of 119 students participated in the workshop. It was organized in association with Estrado Technologies and mainly focused on hands-on training on microcontrollers and Arduino IDE.



- Organized the “All Kerala Young Scientist [AKYS]”, 2014 for all the first year students across Kerala on March 01, 2014. There were a total of 42 participants from various Colleges across Kerala.



- The Annual General Body Meeting of IEEE Student Branch, Mar Baselios College of Engineering and Technology, Trivandrum was held on March 02, 2014. The meeting was chaired by Prof. S. Viswanatha Rao, IEEE Senior Member and Head of the Department of Electronic & Communications Engineering. Mr. Nandan S., Branch Counselor, and Ms. Anu Mariam John, Advisor WIE, were the other dignitaries at the meeting.
- IEEE MBCET SB released the 8th issue of student branch newsletter - Excalibur 2014 for the year 2014. Prof. S. Viswanatha Rao, Senior Member IEEE and HOD, ECE was invited to release the newsletter during the Annual General Body Meeting 2014.
- IEEE Branch counselor Mr. Nandan S. attended a one-day workshop on “Industry-Institute Interaction” as part of IEEE Branch Counselor’s Congress (BCC 2014) held at Ernakulum on April 26, 2014.
- IEEE Kerala Section sponsored nine students from M-Tech Computer Science to attend the 2-day Workshop on Free Mobile Platforms on March 11 and 12 at Technopark, Trivandrum.
- Five Executive Committee Members of IEEE MBCET attended the EXECOM face-to-face meet on April 12, 2014 at Ernakulum.

- Eight students from IEEE MBCET attended the NASA Space App Challenge 2014 on 12 & 13 April, 2014 at Startup Village, Kochi.

Faculty Inclusion

The following faculty have joined the Department :

Ms. Dhanya Devarajan, M.Tech., Telecommunication Engineering, MBCET., Ms. Lani Rachel Mathew, M.Tech., Telecommunication Engineering, MBCET., Ms. Riya John, M Tech Signal Processing, Rajagiri School of Engineering and Technolog., Ms. Jofina Jose, M.Tech., Communication Engineering, NIT, Calicut, Ms. Hema P. P., M.Tech., Communication Engineering, VIT University and Ms. Lakshmi S., M.Tech., VLSI and Embedded Systems, CDAC.

Department of Information Technology

Important events / Achievements (staff)

Seminars/Workshops Attended

- Mr. Biju B. Varghese coordinated a Two Week ISTE Workshop on “Computer Programming” conducted by IIT Bombay from 9 – 22 June, 2014.
- Ms. Asha S., Ms. Elizabeth B. Varghese, Ms. Devi Priya V. S., Ms. Divya R. S., Ms. Poorna B. R., Ms. Ashwini B. and Mr. Shon J. Das attended the above programme.
- Ms. Asha S., Ms. Elizabeth B. Varghese, Ms. Devi Priya V. S., Mr. Sandeep S. R., Ms. Divya R. S. and Ms. Ashwini B. attended a Two Week ISTE Workshop on “Computer Networking” conducted by IIT Bombay from 25 June to 08 July, 2014.

Paper Presentations and Publications

- Ms. Elizabeth B. Varghese has published a paper titled “Software Plagiarism Detection Techniques: A Comparative Study” in the International Journal of Computer Science & Information Technologies, Vol.5(4), 2014, pp. 5020-5024
- Mr. Vishnukumar S., Madhu S. Nair and M. Wilsey have published a paper titled “Edge Preserving Single Image Shaper-resolution with Improved Visual Quality in International Journal of Signal Processing, Elsevier, Vol.105, pp. 283-297, [Impact Factor-2.238]

Achievements of Faculty Memebers

- Mr. Vishnukumar S. was elected as the Secretary, “Computer Society of India”, Trivandrum Chapter.

Achievements of Students

Academic

- **Ms. Arathy Krishnan secured First Rank** (CGPA-9.02) in B.Tech. Information Technology Degree Examination held by the University of Kerala in 2014.

Sports

- Gokul S. and Arun Kumar, S5 IT, won the First place in College Games - 2014, First position in Kerala University Intercollegiate Basketball Championship, First position in Don Bosco All Kerala Senior State Basketball Tournament.
- Divya R., S5 IT, got selected in University Games (South Zone) for Badminton (Runner-up) in Interstate University Badminton competition held in Manipal.

Arts

- Dilsha Reghunath, S5 IT, won First prize in Fashion show held at All Saint's College, Trivandrum.
- Sairaj, S5 IT, won Second prize in Vrindavadyam in Kerala University Youth Festival 2014

Social Service Activities

- Reethu Das, Aneesh and Aiswarya Kammath, S5 IT, attended NSS Kerala State Level Camp on Blood Donation.
- Ashwin and Aneesh, S5 IT, have participated in Organ Donation Rally as part of the NSS activities.

Extracurricular activities

- Divya Ann Jacob, Vinu A. Nair, Preethi Prassanan and Dany Sam Salmon, S7 IT, attended one week MIT-TATA workshop at MBCET.
- Vaishnavi and Afra S., S5 IT, attended a Conference on NASA Startup
- Aneesh and Alka Ajith, S5 IT, attended CSD Conference held at Chengannur.
- Sabari Girish, Aneesh, Alka Ajith and Mohammed Fazil, S5 IT, attended a Conference on HTML 5 held at Kochi.
- Sreya, Amal, Revathy, Aneesh, Mohammed Fazil, Anuja, Sabari Girish, Princy Susan and Aiswarya, S5 IT, attended a workshop on JAVA.

Department of Mechanical Engineering

Two-Week ISTE Workshop on Fluid Mechanics

A Two Week ISTE Workshop on Fluid Mechanics initiated under the National Mission on Education through ICT, MHRD, New Delhi, conducted by IIT, Kharagpur was held from 20 to 30 May, 2014. The Workshop benefited regular/visiting faculty colleagues who are teaching subjects like Fluid Mechanics, Transport phenomena and Hydraulics at the undergraduate or the postgraduate level. MBCET was a remote centre for the Workshop. Around 30 Teachers from various Engineering Colleges in the city participated in the Workshop. The Workshop comprised of lectures on important topics, Exercises, discussion, Interactive sessions, online Tests and Group Assignment activity. Live lectures were given by **IIT Faculty Members, Prof. Sankar Kumar Som, Prof. Suman Chakraborty and Prof. Sandipan Ghosh Moulic**. The lecture transmission and live interaction took place through distance mode, using the AVIEW Technology and the internet.



Two day Training Program on Hyperworks

A two day Training Program on Hyperworks was organized by the Department of Mechanical Engineering for the Staff and PG students of Mechanical Engineering. The training was given on 17 & 18 July, 2014 by Altair from 9.30 am to 4.00 pm. The HyperWorks provides the most comprehensive, open-architecture CAE solution in the industry, including best-in-class modeling, analysis, visualization and data management solutions for linear, nonlinear, structural optimization, fluid-structure interaction, and multi-body dynamics applications. Committed to an open-systems philosophy, Altair HyperWorks continues to lead the industry with the broadest interoperability to commercial CAD and CAE solutions in the PLM market space.

New HoD

Dr. K. J. Sreekanth has taken charge as Head of Mechanical Engineering Department.



New Faculty members

The following teachers joined the Department:

Mr. Vishnu Prasad K. R., M.Tech. - Automobile Engineering, National Institute of Technology - Warangal;

Mr. RamSankar V., M.Tech. - Thermal Engineering, BITS Hyderabad.

Mr. Sujith S., M.Tech. – Machine Design, Barton Hill College of Engineering

Mr. Renjith H., M.Tech. – Machine Design, MBCET.

Research Papers/Publications

Mr. RamSankar V., - “Analysis of a CPV system Vis-a-vis SPV System for an Educational Institution in India”, Journal of Applied Mechanics and Materials, Volumes 592-594, under Dynamics of Machines and Mechanisms, Industrial Research. pages 2422-2426.

He published another paper titled “Design and Economic Analysis of a Combined Desalination Plant using Parabolic Trough Collectors and Solar Photo Voltaic Technology”, Journal of Applied Mechanics and Materials, Volumes 592-594, under Dynamics of Machines and Mechanisms, Industrial Research. pages 2345-2349

Staff Achievements

Mr. Deepak G. Dilip, Asst. Professor, MBT has joined NIT Calicut as a full-time Research Scholar to obtain a Doctorate Degree in ME.

Mr. Rajesh T. N. and Mr. Vinod V. have joined the college back after study leave.

Ms. Nidhi M. B., gave a talk on the Scope and Advantages of ISTE as the Guest of Honour at the Inaugural Function of ISTE Faculty Chapter at the Muslim Association College of Engineering on 7 Aug. 2014.

Student Achievements

Arjun K. S., of second year Mechanical Engineering has been titled KALAPRATHIBA for his splendid performance at the Kerala University Youth Festival.



Department of Science & Humanities

Head of the Department :

Ms. Binimol Mary Mathew has taken charge as the Head of the Department



Invited Talk :

The Department arranged an invited talk on "Fuzzy Mathematics and its Applications" by **Dr. Mary George, Associate Professor, Mar Ivanios College, Trivandrum** on 12 Aug. 2014 for the Fifth Semester B.Tech. students of Electronics & Communication.

Research Activities :

Ms. Lakshmi J. S. has registered for the part time Ph.D. Degree Programme under the guidance of Dr. Jijimon K. Thomas, Associate Professor, Mar Ivanios College, Trivandrum on 'Nanoceramics (Tellurium & Vanadium based Compounds)'.

Ms. Savitha M. T. has registered for the part time Ph. D Degree Programme under the guidance of Dr. Mary George, Associate Professor, Mar Ivanios College, Trivandrum on 'Fuzzy Optimization'.

Seminars/Workshops participated / presented papers :

Dr. Jinu M. John participated in the UGC sponsored National Seminar on 'Nanomaterials (NSM 2014)' held at NSS College Changanassery during 12-13 August, 2014.

Ms. Archana P. Das, participated in the UGC sponsored National Seminar and Workshop on 'Molecular Modeling and Computational Chemistry' held at the Sree Narayana College Chengannur during 07 – 09 May, 2014.

Ms. Sabitha S. Nair and Ms. Neeradha C. K. participated in the Three days National Conference on 'Recent Trends in Pure And Applied Mathematics' organized by Post Graduate and Research Department of Mathematics at Mar Ivanios College, Thiruvananthapuram from 21- 23 August, 2014.

Faculty Inclusion :

The following members joined the Department recently: Ms. Treasa Antony, M.Sc. & Ms. Soumya G. S., M.Sc, B. Ed,

Sports & Games

Amal Britto (S1S2 CE-1)

Winner of All Kerala Junior Ranking Shuttle Badminton Tournament Held At Kozhikode. Runner-up in the Junior State Championship held at Ernakulam and the All Kerala Junior Ranking Shuttle Badminton Tournament held at Trivandrum.



NIDHIN J. R. (S1S2 CS-2) became the winner of Kollam District Under-19 Shuttle Badminton Tournament Held at TKM, Kollam and

BEGUM YASMINE (S1S2 EE) – The Runner-up in the Junior National Ranking Tennis Tournament held at Trivandrum.

Kerala University Competitions

The College Team won the Table Tennis Men- Runner-Up Team Championship and the Table Tennis Women - 2nd Runner-Up Team Championship at the University Competitions. In the event Football, the College Team defeated the Mohandas Engg. College (2-0); and the Emmanuel College (5-0) and entered in the Quarter Final and lost to MG College – (3-0)

Exodos - M.Tech. 2012 – 14

The Course Completion Ceremony of the First Batch of M.Tech. Students of MBCET was held on 4 August, 2014 in the Senatus Hall. **His Beatitude Moran Mor Baselios Cardinal Cleemis Catholicos, Major Archbishop of the Malankara Catholic Church** delivered the Benedictory Address and presented the mementos to the students. Fr. Wilson Thattaruthundil, Bursar, Dr. T. M. George, Principal

and Prof. Paul Thomas, Dean – PG, spoke on the occasion.

M.Tech. College Toppers

Ms. Anjana Krishnan – Structural Engg.; Ms. Jijina N. – Telecommunication Engg.; Ms. Sarika E. P. – Power Control & Drives; Mr. Deepak B. S. and Ms. Shini Renjith – Computer Science & Engg.



Training & Placement

Campus Recruitment for the 2015 graduating batch started on August 2, 2014 with MU Sigma recruiting 6 students, QBurst (7 Offers) and Envestnet (4 Offers).

Infosys, IBS and other companies will have their Recruitment Programme from September onwards.

Infosys – Business English Programme

Nine batches of second year B.Tech students have successfully completed the Infosys Campus Connect - Business English Course.

MBCET Civil Service Orientation Programme

The Civil Service Orientation Programme is going on. **Shri. Rishi Raj Singh, IPS** and **Shri. K. Jayakumar, IAS**, former Chief Secretary, Govt. of Kerala, were among the Resource Persons.



College Senatus

The College Senatus has been constituted with the following office-bearers : Chairman : Rejoy Rajan, S7, CE; Vice-Chairperson: Zachariah Mathews, S7, CSE; General Secretary: Mohammed Yakoob P. S., S5 ME2; Joint Secretary : Reshmy Prasad, S7, EEE; Arts Secretary: Bijo B. Thomas, S7, EC; Treasurer: Anish Francis, S5,

IT; Sports Secretary: Philip Jithin Paul, S7, EEE; Social Activity Secretary: Sherin Raj, S5 EC2; Media Secretary: Krishnachandran U., S7, ME. Staff Advisors: Mr. Rajesh T. N., Asst. Prof., ME and Dr. Jinu M. John, Asst. Prof., S&H.

Under the auspices of the College Senatus Onam Celebrations were held on 5th September 2014. Inter Branch Competitions in various events such as Athappookkalam, Tug-of-War, etc. were held.



Staff Club Onam Celebrations

Various competitions in connection with the Onam Celebrations were held on 5 September, 2014. It concluded with the Atha Pookalam and the 'Ona Sadya' followed by cultural events and Tug of War (Men and Women) competitions. Fr. Wilson Thattaruthundil, the Bursar gave the message on the occasion. Winners of the staff sports were given the prizes. The ever-rolling trophy (Men) was won by the Mechanical Engg. Dept. and that of Women was won by the Computer Science Dept. Mr. Ajimon Thomas, CE Dept. and Ms. Kshema won Kumari B. Office Assistant the Individual Champions Trophy.



Obituary

Prof. V. K. Thankammal (1945-2014) who was the Professor in Mathematics from 2003-2011 passed away on 13 Aug. 2014. She is survived by her husband, two daughters and grand children.



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