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Volume VI



MANGALAM COLLEGE OF ENGINEERING

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From HOD's Desk

The overall development of a high ability person is the essential aspect of his/her growth. Our institution provides not only quality education but emphasizes on the development of the students creative interest. One of the major channels to enhance personality is the 'project work' .

The project work offers a platform to the students as well as the teachers to interact and work as a group thereby inculcating good team work and building confidence level.

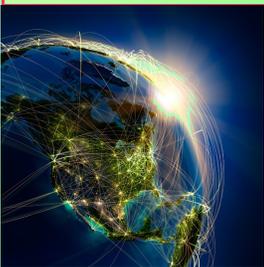
The mini project of the 6th semester and micro project of the 5th semester aim to broaden the intellectual horizon of the students. The Department encourages students to participate in the project competitions and project exhibitions to showcase their technical talents.



An Another golden feather in the crown of ECE

As part of extending our innovations in the core fields of communication and signal processing, we started an M.Tech course in Communication Engineering as our second Post Graduate programme. We have got approval from AICTE and this course is affiliated to MG University with an intake of 18 seats.

The programme curriculum is aimed at Advanced Communication including RF IC Designs , High level Antenna Design etc.





Academic Achievements : Innovative Minds :

Dept. of ECE always encourage our young aspirants to realize their innovative ideas and thoughts . Our final year students successfully implemented a number of creative projects that will be beneficial to the society.



Ajit Saju, Jithin Shaji, Syam S, Vimal K Varghese , students of S8 ECE implemented a **Wireless Keyboard Controlled Tank Robot** capable of 360 degree locomotion .

This Project batch have secured second position in Project Presentation in Robot 10, the technical fest held at Amal Jyothi College of Engineering, Kanjirapally organized by **Magnificata Hybrid Gadgets and ISSEC, London** on **6th of April 2013**.



Anu Babu Joseph, Keerthi S Nair, Jennifer John, Sona Is-sac, Sreeraj K.D students of S8 ECE made a **INTELLIGENT AERODROME CART** , passenger friendly trolley which doesn't have any physical contact with the passenger. So, the main advantage is that the passenger doesn't want to carry the trolley, it will automatically follow the person. This Project have got good appreciation in Project Presentation, the technical fest held at St.Joseph College of Engineering & Technology, Pala on **6th of April 2013**



Anjali C. O, Jayalekshmi K.R, Nithin Chandran, Syam Vishnu P.S students of S8 ECE made a **TOUCH CONTROLLED RESCUE ROBOT** . It is a robot which can be deployed at remote places where found difficult for rescue operations .



Aswini Kumar, Neethu Krishnan, Shalu Jose, Vishal K M, Vivek Krishnan students of S8 ECE implemented a **SMART HOME WITH INTELLIGENT INTRUDER DETECTION**. Smart home technology has proved to contribute an increased level of safety and security.



Enrichment Programs

As part of our academic enrichment, we have conducted bridge courses for third, fifth & seventh semester students during their semester break. The main objective of this program is to strengthen our students in core areas of electronics like Communication, signal processing, Engineering Mathematics etc. We also conducted personality development programmes and aptitude training for our students.

Courses conducted for various classes are



- **Prof.Asha Panicker HOD ,ECE** delivered a talk (18/6/2013) on “Our Expectations “ What the Department expects from each student .
- **Dr. Praveen Shenoy Dean (Research)** conducted a class (20/6/2013) on “ Electronics around you” A Discussion on the Semiconductor Industry .
- **Prof.Varkey Philip Coordinator (Placement)** conducted a seminar (19/6/2013) on Importance of placement training ,different phases in placement training .
- **Mr. Deepesh Divakar Asst. Coordinator (Placement)** delivered a talk on phases of development of electronic Industry & current scenarios of the job opportunities .
- **Mr. Bibin Binu Simon , Asst. Professor ECE** took a session on “Tricks & Tips to improve personality, emphasizing more on positive attitude & confidence.



- **Mathematical Foundation For Engineering** : Prof. Asha Panicker HOD ECE ,Mr.Ajith Joseph , Mr. Bibin Binu Simon , Ms.Sajeeva Sunny , Ms. Siji Eapen , Ms. Blossom Treasa Bastin lead the classes.
- **Electroconnect** : Mrs. Binu Manohar , Mrs. Aswathi Gopan, Mr.Bibin Binu Simon , Mr.Anu Philip Mathew, Mr.Rakesh S were handled the sessions .
- **Familiarization of MATLAB & Basics of signal Processing Lab.** Mr.Sreeraj K.P , Ms. Greeshma R, Ms. Siji Eapen, Ms. Anjaly V , Ms. Hima Sara Jacob lead the classes.

SEMESTER	COURSE	DATE
S3	ADD-ON COURSE ON PERSONALITY ENHANCEMENT AND PLACEMENTS	18 th June 2013- 20 th June 2013
S3	ELECTROCONNECT & MATHEMATICS	21 ST , 24 th - 27 th June 2013
S7	BASIC MATLAB WORKSHOP ON SIGNAL PROCESSING AND ADVANCED COMMUNICATION	25th June 2013- 28th June 2013

Industrial Visits

- Students of EC 5A visited the All India Radio (Prasar Bharti) broadcasting station Alapuzha on 26/6/2013. Mr. Kevin Varghese , Mrs. Simi P Thomas , Asst. Professors were accompanied the students.
- Students of EC 5B visited the All India Radio (Prasar Bharti) broadcasting station Alapuzha on 27/6/2013. Mr. Sanju Sebastian , Mrs.Reshma were accompanied the students. It helped student community to understand the concept of FM radio transmission and various steps involved in the radio communication.
- Fifth semester students EC 5A &5B visited KELTRON Aroor, the indigenous electronic manufacturing giant run by Govt. of Kerala on 29/06/2013 as part of their industrial visit and they get in touch with various units in that electronics firm. Faculty members Mr. Sreeraj K P , Ms. Anjaly V ,Mr. Sanju Sebastian and Mrs jyothisree were participated.

News & Events

- Ms.Siji Eapen Asst.Professor, is appointed as Department Secretary from May 2013 .
- Mr.Anu Philip Mathew ,Ms.Gayathri Devi K G were appointed as class in charges of S7 EC A batch.
- Mr. Kevin Varghese, Ms. Aswathi Gopan ,Mr. Bibin Binu Simon ,Ms. Sreelekshmi are the new class in charges of S3 EC A & B batches respectively.
- Our S3,S5, S7 classes were started from 17th June onwards.
- Enrichment programs & Bridge courses , specially focused on their curriculum were conducted .
- Department Meeting were held on 13th May, subjects allocation and next semester plans were discussed in this meeting.



Spectacular Moments of ECE



Ms. Hima Sara Jacob, Asst. Professor, secured Second rank in M G University M.Tech (VLSI & Embedded systems) Degree Examination May 2012. On behalf of ECE Dept. we congratulate her for this delightful achievement.



Technical Paper Presentation:



Mr. Rakesh S Asst. Professor presented a paper titled "VLSI Implementation of Digital keying Techniques using VHDL" in International Conference on Global Innovations in Technology and sciences (ICGITS-2013) on 6th April 2013 at Saint Gits College of Engineering, Pathamuttom. He also presented a paper in the National Conference on Innovations in Engineering & Technology (NCIET-13) on 4th May 2013 at Musaliar College Of Engg. & Tech., Pathanamthitta.



Mrs. Aswathi Gopan Asst. Professor presented a paper titled "VLSI Implementation of Power Efficient CSLA using BEC" in National Conference on Recent trends in Electrical & Electronic Engineering (NCRTEEE 2013) on 3rd May 2013 at Jerusalem College of Engineering, Chennai. She also presented a paper in the National Conference on Innovations in Engineering & Technology (NCIET-13) on 4th May 2013 at Musaliar College Of Engg. & Tech., Pathanamthitta.



Mrs. Jyothisree K R Asst. Professor presented a paper titled "A High Accuracy & Area efficient Fixed Width Booth Multiplier" in the National Conference on Innovations in Engineering & Technology (NCIET-13) on 4th May 2013 at Musaliar College Of Engg. & Tech., Pathanamthitta.

Students of M.Tech(VLSI&ES) 2012-2014 presented technical papers as part of their academic development programs in the National Conference on Innovations in Engineering & Technology (NCIET-13) on 4th May 2013 at Musaliar College Of Engg. & Tech., Pathanamthitta.

On behalf of ECE Department We congratulate our colleagues & students for their career achievements.



Social Services-2013

Our aim is to enhance student's environmental awareness and developing their sense of responsibility towards the Society.

Students of 2nd year ECE A batch have done five days of social service in MGM ABHAYA BHAVAN , Pampady from 01/07/2013 to

05/07/2013.

Students of 2nd year ECE B batch have done five days of social service in Bethany Ashram, Mandiram from 01/07/2013 to 05/07/2013.



Farewell Ceremony-13

Au revoir



“Farewell” - a word which has the strength to give a blend of a number of emotions in the life of a student. It can give the excitement of a new world which he will step to. At the same time it can make one sad due to the depart from his friends , an unforgettable college life. It gives the thoughts of new challenges which the have to face, expectations of a new life.

The word Farewell is a mix of all these feelings. In this sense the farewell turned to be a moment of joy & happiness & it has to be celebrated colorfully.

Mangalam Campus missed one of its best batch of ECE this year .The farewell to this batch celebrated colorfully. The 2010-14 batch gave their seniors a beautiful send off event on 5th May which can be remembered in everyone's mind.

The ceremony was blessed with the presence of , Respected HOD of ECE , Prof. Asha Panicker, Legal Advisor Dr. Abraham Chettissery, Principal Dr. N.K.Varghese, faculty members and students. The inaugural ceremony was followed by various cultural activities of students .

On this auspicious occasion prizes were also distributed to the students with outstanding performance . Prizes were distributed by respected HOD of Dept. of ECE , Our Legal Advisor Dr. Abraham Chettissery.



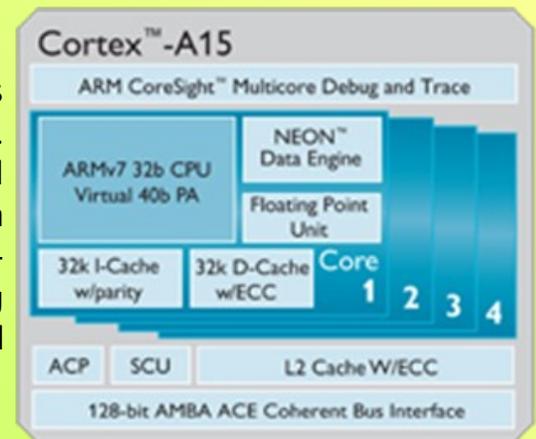
PG's Corner

Ms.Divya Jose

M.Tech VLSI& ES

Cortex-A15 Processor

The **ARM** Cortex A15 MP Core processor is today's high-performance engine for highly-connected device. This processor delivers unprecedented flexibility and processing capability. This processor is designed with advanced power reduction techniques, and enables compelling products in a wide range of new and existing ARM markets ranging from mobile computing, high-end digital home, servers and wireless infrastructure.



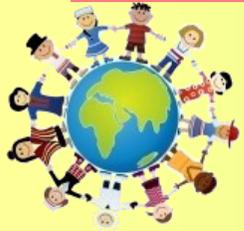
The Cortex-A15 MPCore processor is the first ARM processor to incorporate highly efficient hardware support for data management and arbitration, enabling multiple software environments and their applications to simultaneously access the system capabilities. This enables the realization of devices that are robust, with virtual environments that are isolated from each other.

Extending ARM's leadership in the mobile space, the Cortex-A15 processor will deliver twice the performance of today's smart phones based on the Cortex-A9 processor. This is a level of performance once only seen in laptops now in a mobile thermal and power envelope. This also represents over five times the performance of smart phones based on the Cortex-A8 processor.

Applications:

- Advanced Smartphone
- Mobile Computing
- High-end Digital Home Entertainment
- Wireless Infrastructure
- Low-power Servers
- Wireless Infrastructure
- Low-power Servers

The growing complexity of the Web2.0 centric devices is creating the requirement for devices to support multiple software personalities and combine disparate functionality. For this reason the Cortex-A15 MP Core processor introduces new technology from ARM that enables efficient handling of the complex software environments including full hardware virtualization, Large Physical Address Extensions (LPAE) addressing up to 1TB of memory as well as error correction capability for fault-tolerance and soft-fault recovery.



New Members Of Mangalam Family:



Ms. Reshmi Hariharan

Asst. Professor

M.Tech in Microwave &
Radar Engineering
(CUSAT)



Mr. Arun Mani

Asst. Professor

M.Tech in Signal Process-
ing (CET)



Ms. Jeslin Edison

Asst. Professor

M.Tech in communica-
tion Engg (VIT).

Send offs



Mr. Gopakumar M G , Ms. Blossom Treasa, Asst. Professors were relieved from this institution as part of their career enhancement.



Mrs. Surya Merry



Mrs. Shenu P M

Ms. Surya Merry Scaria, Ms. Shenu P M were relieved from our department since they went abroad after their marriage .

On Behalf of ECE Dept. We wish to place on record our heartfelt thanks to their sincere service.



Since the inception of Mangalam College of Engineering , 'Mary Chechi' has been a part of our college .She used to provide us tea during morning & evening break time . She is a lovable person and her pleasant smile made our mornings delightful. She retired on 30th April after a remarkable service.