



IMPETUS

.....For a change

Volume I, Issue 1, March 2016

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Department Of ECE, KCG COLLEGE OF TECHNOLOGY

Vision of the Department

To become a centre of excellence of global significance in Electronics and Communication engineering and producing competent professionals committed to nation building.

Mission of the Department

Impart sound knowledge of Electronics and communication through innovative teaching learning process
Establish laboratories equipped with modern state of art technology resources to facilitate research and consultancy
Enhance the knowledge and skills of the faculty to incorporate the latest advancements
Engage students in participative research through investigation and cognizance of societal and ecological needs
Inculcate critical thinking, ethical practices, and professional conduct to make competent professionals capable of working in a collaborative environment.

Program Educational Objectives

The graduates after completion of the degree will

PEO 1	Have a successful career in technical or professional fields
PEO 2	Demonstrate technical competence to provide solutions for real time Electronics and Communication engineering problems
PEO 3	Exhibit professionalism and ethical attitude in their work

Program Outcomes:

At the end of the program the student will be able to

PO1	Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO2	Identify, formulate, research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO3	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO4	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO5	Create, select, and apply appropriate techniques, resources, and modern engineering

	and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO6	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO7	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO8	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO9	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.
PO10	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO11	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO12	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Programme Specific Outcomes

The graduates after the completion of B.E Electronics and Communications will be able to

Apply the knowledge of Basic sciences, Electronics and Communication engineering fundamentals and specialization for solving complex problems in Electronics and Communication systems.
Design suitable Electronic circuits and communication systems using modern tools such as PSPICE, MATLAB / Simulink, Assemblers, Cadence and NS2
Practice the ethics of their profession with a sense of social responsibility

HOD'S Message

We are happy to inform that our pride rests in the Department technical magazine “IMPETUS”, which highlights the academic and non – academic activities of both staff and students of the department.



During every semester, the calendar of events is prepared, which implicitly incorporates all the curricular and extra-curricular activities of the department and is followed meticulously without any deviation. Importance is given to quality teaching and learning process through faculty development programs for teachers and soft skill programmes for students. Special care is taken about the students whose performance is poor in the examinations through counseling and extra classes.

There is continuous internal evaluation of students through unit tests, internal assessment tests and quiz programmes. The problems of students are solved to the extent possible as and when they arise. The attendance and progress reports are sent to the parents after every internal assessment tests. The parents of weak students are informed about their status by telegram and also by telephone calls. The attendance of students are monitored on hourly basis and is updated online daily in students progress report.

The students are encouraged to participate in seminars conducted by other Engineering Colleges. They are made to compulsorily participate in the weekly departmental activities such as debate, extempore, group discussion, Quiz and brain storming sessions. At least three expert lectures are arranged every semester by experts from industries and leading Educational Institutions on advance topic to the benefits of both staff and the students. The staff members are encouraged to attend national and state level workshop to enhance their knowledge.

Every effort is made to constantly improve the results of the students. I am very happy to inform that due to the concerted efforts of both staff and students, the results are very encouraging this time in case of higher semesters. The results of the lower semesters are also constantly improving.

Dr.Sumathi Poobal, HOD/ECE

Conference-organized and participated



Students of ECE department have presented papers in various conferences.

To list a few,

- Mr.R.Adhithya has presented a paper titled Dynamic MultiLevel Priority Based Packet Scheduling to Improve the Lifetime in MANET in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.
- S.Suganya Hepzi Jeba has presented a paper titled “Priority based Multi Sensor Technique in Wireless Sensor Networks in the International conference on Emerging and recent technology(ICERT 2016) held at Sree Sastha College of Engineering on 2 April 2016.
- K.Rose Hashmi has presented a paper titled “Energy based failure identification and healing for structural Health Monitoring “in the International conference on Emerging and recent technology(ICERT 2016) held at Sree Sastha College of Engineering on 2 April 2016.
- Ms.P.Soundharya and Ms.C.Suganthi of KCG College of Technology have participated in Paper presentation in National Level Technical Symposium IMPULSE-2K16 held at Chennai Institute of Technology on 3rd March,2016.
- Ms.Revathi K of KCG College of Technology has presented a paper titled MIMO Self-Heterodyne OFDM using Relay Path Analysis in the “IET Sponsored Fifth National Conference on Recent Advancements in Signal Processing And Communications(NCRASPC-2016)”at R.M.K College of Engineering And Technology on 7th March,2016.

- Ms.V.Nithya from KCG College of Technology has presented a paper titled Dual-Wide band and Triple wide band LTE Antennas for Tablet Computers:A Survey in the national conference on Computing Communication and information technology(N3CIT) at T.J.S Engineering College on 7th April'2016.
- Ms.Rose Hashmi of Kcg College of Technology has presented paper titled “Energy based failure identification and healing for structural Health Monitoring” in the International Conference on Advances in Emerging Technology 2016 (ICAET 2016) held at Jaya Engineering College on 07, May'16.
- Ms.Suganya Hepzi Jeba of M.E Communication System has presented a paper titled “Mobile Data Gathering using Multisensor Technique in Wireless Sensor Network in in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.
- Ms.Sibil Joseph of M.E Communication System has presented a paper titled “Efficient Handoff Based Privacy Presentation for VANET” in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.
- Ms.Priya Thomas of M.E Communication System has presented a paper titled “Rank based Routing under Blind Information for Cognitive Radio ADHOC networks” in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.
- Ms.Priyanka of M.E Communication System has presented a paper titled “ Performance of co-operative bait detection scheme to avoid attacks in MANET”in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.
- V.Nithya of M.E Communication System has presented a paper titled “ Multi-Band LTE Antenna for 4G Mobile devices” in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.
- Ms.Jenifer.J of M.E Communication System has presented a paper titled “ Isolation Enhancement of two coupled Antenna using Decoupling network in MIMO applications” in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.
- Ms.Hina Pal of M.E Communication System has presented a paper titled “ Seven application high gain antenna for indoor distribution antenna system”

in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.

- Ms.Krithiga.S of M.E Communication System has presented a paper titled “Simulation of NC-OFDM Link for cognitive radio application” in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.
- Ms.Revathi K of M.E Communication System has presented a paper titled “MIMO selfheterodyne OFDM using relay path analysis” in the “National Conference on Communication And Control Systems” organized by ECE Department and EIE Department of KCG College Of Technology on 16th April,2016.
- Adhithiya of ME Communication Systems presented a paper titled Improving the network life time in MANET using sleepex nodes” in the National Conference on”Smart Information Light Fidelity Internet of Things Conference “ orgazied by the department of ECE on 16 and 17 March 2016 at Dr.M.G.R. Educational and Research Institute.

Workshop/Seminar/Symposium events attended:

Kailash .G and Kowligi Vijaya Sri Hari of 4th semester has presented a paper titled “Research advances in/micro device application” at KCG college of Technology in association with IETE on 29 Feb 16

P.Soundarya and C.Suganthi of 6th semester has presented a paper titled “DNA Cryptography” at KCG college of Technology in association with IETE on 29 Feb 16

S.Ranjani of 6th semester has presented a paper titled “Quantum Computing” at KCG college of Technology in association with IETE on 29 Feb 16

Kowligi Vijaya Sri Hari of 4th semester has presented a paper titled “Recruitment-Implementation of energy recovery for low power app” at KCG college of Technology in association with IETE on 13 Feb 16

Workshop-organised and participated

Many workshops were conducted in the Department of Electronics and communication for the benefit of the students. Workshops provide opportunity for students to blend theoretical knowledge acquired in the classroom with practical hands-on application of knowledge required to perform work in industry.

Project e-Yantra is an initiative to spread education in embedded systems and Robotics by IIT Bombay sponsored by Ministry of Human Resource Development through the National Mission on Education through ICT (NMEICT). The objective of e-Yantra is to provide hands-on learning to engineering students, creating the next generation of engineers in India with a practical outlook to take on challenging problems and provide solutions.

KCG College of Technology is a member of e-Yantra and has set up a state of the art laboratory under the e-Yantra Lab Set-up Initiative (eLSI). The KCG e-Yantra Robotics Lab trains students in embedded systems and micro-controller programming by engaging them through the Project Based Learning (PBL) mode.

The KCG e-Yantra Robotics Lab is offering a Certificate Course in Robotics & Embedded Systems.

The course for a batch of 28 students was conducted on 2,3 and 4 March 2016. The 3 day course was conducted by Ms.George Gina Joseph (Associate Professor/ECE),Aida Jones (Asst. Professor, ECE), S. Subash Chandra Bharathi (Asst. Professor, EEE). The students were introduced to Embedded Systems and Robotics using the Firebird V robot which uses the Atmega 2560 as the master microcontroller and Atmel 8 as the slave. Programming the robot using Embedded C via the Atmel Studio 4 programming environment, compiling the program using WinAVR and downloading the program using AVR Boot loader were taught to the students.

Two day workshop on PCB design was conducted by the Dr.V.Subborayan,Ms.B.Thyla,Mr.T.Thomas Leonid and Mr.K.Sivachandar,members of EFY KCG Tech centre on 4-5 March 2016.More than 25 students were benefited by the training program.First session was introduction to the EAGLE software and how to start up with the tools. Students were taught on how to create a schematic sheet and add components, Add nets to the schematics and how to check the schematic was outlined. The effective use of the tool for generation of schematics, simulation, layout generation, ERC, Board creation for a power supply circuit was designed was illustrated using EAGLE software.



Two day workshop on ARDUINO was conducted by the Dr.V.Subborayan, Ms.B.Thyla, Mr.T.Thomas Leonid and Mr.K.Sivachandar, members of EFY KCG Tech centre on 21-22 Jan 2016,5-6 Feb 2016. More than 60 students were benefited by the training program.



Internship/In plant training

S No	Name	Place	Duration
1	Akash	Chennai port Trust	23.6.16 to 28.6.16
2	Ansu Thomass	VI Micro Systems	27.06.16 to 01.07.16
3	Mahalakshmi	VI Micro Systems	27.06.16 to 01.07.16
4	Lavanya M	VI Micro Systems	27.06.16 to 01.07.16
5	Hari Sreenivalsalu V	Flextronics Technologies	22.06.16 to 29.06.16
6	Balaji V	BSNL	21.12.15 to 26.12.16
7	Balaji V	Spiro Solutions	17.06.16
8	Balaji V	Chennai port Trust	23.06.16 to 28.06.16

FDP/Workshop/GL/Seminar attended

Name	Title	Place	Date
Mrs.Kavitha Balamurugan	Emotional Intelligence	CTI Womens Empowerment	23 June 2016
Dr.V.Subborayon	FDP on IoT-Ideation	KCG College of Technology	20-21 June 2016
Mr.Thomas Leonid	FDP on IoT-Ideation	KCG College of Technology	20-21 June 2016
Ms.Renganayaki	FDP on IoT-Ideation	KCG College of Technology	20-21 June 2016
Mr.Jose Anand	FDP on IoT-Ideation	KCG College of Technology	20-21 June 2016
Mrs.Kavitha Balamurugan	FDP on IoT-Ideation	KCG College of Technology	20-21 June 2016
Mr.Jose Anand	Advanced topics in signal processing RF and wireless communication	IITDM,Kanchipuram	13-15 June 2016
Ms.Jaraline Kirubavathy	EC 6502-Principles of DSP	Rajalakshmi institute of trechnology	9-10 June 2016
Ms.B.Thyla	EC 6502-Principles of DSP	Rajalakshmi institute of trechnology	9-10 June 2016
Dr.Deepa Jose	EC 6502-Principles of DSP	Rajalakshmi institute of trechnology	9-10 June 2016
Mr.Thomas Leonid	EC 6502-Principles of DSP	Rajalakshmi institute of trechnology	9-10 June 2016
Dr.Sumathi poobal	Workshop on incubation, R&D and other developmental schemes of Government of India	EDI, Chennai	13 June 2016.
Mr.Jose Anand	2 days Workshop on Basics of Solar PV systems and components	Anna University	3-4 June 2016
Ms.Abida Begam.S	2 days Workshop on Basics of Solar PV systems and components	Anna University	3-4 June 2016
Dr.Deepa Jose	2 days Workshop on Basics of Solar PV systems and components	Anna University	3-4 June 2016
Mr.Jose Anand	2 day Workshop on Embedded Systems	Jeppiar-SRR Engineering College	5-6 May 2016
Mr.Thomas Leonid	2 day Workshop on Embedded Systems	Jeppiar-SRR Engineering College	5-6 May 2016
Ms.Aida Jones	Innovation and Learder ship DNA summit	M.O.P Vaishnav college for women	23 Jan 2016
Mr.Thomas Leonid	Workshop on System Design XYNQ using STSOC	IIT Madras	2-3 Jan 2016

Activities Conducted/Organized in the Department

- ❖ Dr.Deepa Jose,Ms.B.Thyla,Mr.S.Sadasivam & Ms.S.Abida Begum organised a “National Conference on Communication and Control systems” at KCG College of Technology on 14 April 2016.
- ❖ Dr.Deepa Jose , Ms.B.Thyla and Ms.S.Abida Begum organised a “Mini project Competition” at KCG College of Technology on 29 Mar 2016
- ❖ Dr.V.Subbaroyan,Ms.B.Thyla,Mr.K.Sivachandar and Mr.Thomas Leonid.T conducted a “Workshop on PCB Design” EFY-KCG Tech center,KCG College of Technology on 4-5 March
- ❖ Dr.V.Subbaroyan,Ms.B.Thyla,Mr.K.Sivachandar and Mr.Thomas Leonid.T conducted a “Workshop on Arduino” EFY-KCG Tech center,KCG College of Technology on 5-6 Feb 2016
- ❖ Dr.V.Subbaroyan,Ms.B.Thyla,Mr.K.Sivachandar and Mr.Thomas Leonid.T conducted a “Workshop on Arduino” EFY-KCG Tech center,KCG College of Technology on 21-22 Jan 2016
- ❖ Dr.V.Subbaroyan,Ms.B.Thyla,Mr.K.Sivachandar and Mr. Thomas Leonid.T conducted a “Workshop on Arduino” for the faculty members of ECE at EFY-KCG Tech center,KCG College of Technology on 30 Dec 2015
- ❖ Dr.V.Subbaroyan, Ms.B.Thyla, Mr.K.Sivachandar and Mr. Thomas Leonid.T conducted a “Workshop on PCB Design” for the faculty members of ECE at EFY-KCG Tech center,KCG College of Technology on 19 Dec 2015.

Awards received by the faculty & students

Awards/Achievements (Staff)

- ❖ Mr. Thomas Leonid.T was recognized has BEST TEACHING faculty of Department for the year 2015-2016.

Awards/Achievements (Students)

- Arun Raj,A,Balavannan and AravinthKumar.V of Final year A section has participated in the **SLC** at 6th International Project Competition &Exhibition, Veltech Dr.Rr & Dr.Sr.Technical University, on Date-23-24 February 2016, **First prize** of Rs. 10,000/-.



- Parthiban S, Praveen Kumar S, Sajitha Banu K and Sanjay S of 2nd year ECE have won first place in the IETE project completion for the project titled “Voice Control Robot using Arduino” held at KCG College of Technology on 29th March 2016
- Monica M, Prasanna Venkateswaran T and Ranjani S of 3rd year ECE have won first place in the IETE project completion for the project titled “IoT Based Smart Energy System” held at KCG College of Technology on 29th March 2016
- Maha Krishnan S, Manojkumar M, Mohan Natraj P and Thanikachalam K of final year have won first place in the IETE project completion for the project titled “Simplified Network Simulation” held at KCG College of Technology on 29th March 2016.
- Abishek B, Blessy Victoriabai R, Gayathiri L and Harshavardhini A of final year have stood second in the IETE project completion for the project titled “Tracking of Ballistic missiles” held at KCG College of Technology on 29th March 2016.
- Umamaheswari K, Vasanthalakshmi R, Yasmin Begum D and Ranjan Kumar Gupta of final year have stood third in the IETE project completion for the project titled “Fire detection Security System using Raspberry Pi” held at KCG College of Technology on 29th March 2016.
- Mohan Natraj P, Mahakrishnan S, Manoy Kumar M, Thanikachalam of final year have won first place in the IET poster completion for the project titled “Simplified Network Simulation” held at KCG College of Technology on 1 April 2016.
- Abishek B, Blessy Victorya R, Gayathiri L, Harshavardhini A of final year have stood second in the IET poster completion for the project titled “Tracking of Ballistic missiles” held at KCG College of Technology on 1 April 2016.
- Ranjan Kumar Gupta, Vasanthalakshmi R, Umamaheswari K and Yasmin Begum D of final year have stood third in the IET poster completion for the project titled “Fire detection Security System using Raspberry Pi” held at KCG College of Technology on 1 April 2016
- A Mini Project competition was conducted in the department of Electronics and Communication and experts from industry and colleges judged the projects and best projects were awarded.





Industrial Visits

Industrial Visits:

S NO	Batch	Date of Visit	Place of Visit	No of Students	Staff Accompanied
1.	4 A	23-03-2016	Doordharshan	111	Ms.Felcy Jeba Malar
2	4 B	24-03-2016	Doordharshan		Mr.Yaseen
3	3 M.E(CS)	09-03-2016	NIOT	11	Mr. Jose Anand
4	6A	23-03-2016.	ISRO, Sriharikotta	60	Ms.Felcy Jeba Malar

Publications by staff and students

JOURNAL DETAILS: (2015 – 2016) - Staff

1. Sumathi Poobal, "Performance Analysis Of Secured Position Based Routing In Mobile Ad Hoc Networks", International Journal of Advanced Engineering Technology, Volume7, Issue 2, pp.196-200, ISSN 0976-3945
2. Kavitha Balamurugan "Multi Application Antenna for Wi-Fi, Wi-Max and Bluetooth for better Radiation Efficiency" in International Journal of Scientific Engineering and Applied Science (IJSEAS), Vol 1, Issue 4, ISSN:2395-3470, Impact factor : 0.217, July 2015

3. Jeena Maria Cherian, "Realization of Programmable PRPG with Enhanced Fault Coverage Gradient", International Journal of Science and Research (IJSR), vol. 5, no. 5, pp. 2286,2015, ISSN: 2319-7064.
4. Jeena Maria Cherian, "Atmospheric Turbulence and Pointing Errors Effects in the Performance Matrices of Wireless Optical Links", International Journal of Electronics Communication and Computer Technology, vol. 5, no. 2, pp. 831,2015, ISSN: 2180-3706. Impact factor 1.2456
5. Jeena Maria Cherian, "Design and Simulation of dispersion free PCF in 1530-1565 nm wavelength Band", International Journal of Computer Informatics & Technological Engineering, vol. 5, no. 2, pp. 831,2015, ISSN: 2348-8557. Impact factor 1.2456.
6. Jose Anand, "Malevolent Detection Techniques of MANETs in WSN: A Review", International Journal for Engineering and Innovative Technology (IJEIT), Vol. 5, Issue 6, pp. 48-54, ISSN: 2277-3754.
7. B.Vidhya, "A Combined Approach of DCT and DWT in Image Compression" proceedings of International Journal of Applied Engineering Research(Annex II journal) -, ISSN 0973-4562 Vol. 10 No.87 (2015), pp- 81-84.
8. Deepa Jose, Implementation of Optimized Montgomery modular Multiplier on FPGA, International Journal Of Advanced Research In Biology, Engineering, Science And Technology(Accepted as Best Research Paper, Google Scholar and 100+Indexing
9. J. Raja Paul Perinbam, D. Ebenezer and R. Vasanthi¹, "Iris Recognition Optimized By Ica Using Parallel Cat Swarm Optimization" ARPN Journal of Engineering and Applied Sciences, VOL. 10, NO. 11, JUNE 2015, pp. 4942 – 4947. ISSN 1819-6608
10. J.Raja Paul Perinbam, D.Ebenezer, "Biometric Approach of Iris Recognition Using Geodesic Active Contours", International Journal of Applied Engineering Research ISSN 0973-4562 Volume 10, Number 17 (2015), pp. 13423 – 13428.
11. J.Raja Paul Perinbam, "Iris Authentication Using ICA Optimized By Cuckoo Search Algorithm" International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10 No.2 (2015) pp. 1606-1610
12. J.Raja Paul Perinbam, "Person Identification with Iris Recognition Based on Generalized Structure Tensor", Middle-East Journal of Scientific Research 23 (Sensing, Signal Processing and Security): pp. 184-189, 2015. ISSN 1990-9233
13. Raja Paul Perinbam J, 'Runtime Buffer Management To Improve The Performance In Irregular Network-on-Chip Architecture', Sadhana-Academy Proceedings in Engineering Sciences, Vol.40, No. 4, 2015, pp. 1117-1137. ISSN: 0256-2499

14. J. Raja Paul Perinbam, 'Performance of optimized routing in biomedical wireless sensor networks using evolutionary algorithms', Comptes Rendus de L'Academie Bulgare des Sciences, Vol. 68, No. 8, pp. 1049-1054, 2015. IF 0.38
15. J. Raja Paul Perinbam, "Design of GA-Based Routing in Biomedical Wireless Sensor Networks", International Journal of Applied Engineering Research (IJAER), Vol. 10, No. 4, pp. 9281-9292, 2015, ISSN: 0973-4562. IF 0.3/9
16. B. Vidhya, "A Combined Approach of DCT and DWT in Image Compression" International Journal of Applied Engineering Research (Annex II journal) -, ISSN 0973-4562 Vol. 10 No.87 (2015), pp- 81-84.

JOURNAL DETAILS: (2015 – 2016) - Students

1. Ms. V.Priyanka of KCG college of technology has participated in the Reorganisation of the publication of the paper entitled Malevolent Detection Techniques of MANETS in WSN: A Review, published in IJEIT Journals, Volume 5 issue 6, December 2015.

Extra Curricular Activities

ANNA UNIVERSITY REPRESENTATION

-  Our **Handball Men** Team Player **M.Pragadeshwaran** of ECE first year has been selected to represent **Anna University** in **South Zone Inter University Handball Men Tournament** held at Alagappa University, Karaikudi.

STATE LEVEL ACHIEVEMENTS

- ❖ Our **Handball Men** team was the **Winners** of the **Anna University Zone III Men Handball Tournament** held on 28/09/2015 at Agni College of Technology, Chennai.
Students Name: Pragadeeshwaran M (1st year)
- ❖ Our **Tennis (singles) Men** were the **Winners & Runners** in **PITS SPORTIVA-2015 Tennis Singles Tournament** held from 1st to 3rd Oct 2015 at PITS, Thanjavur.
Students Name: Venkateshwaran J (3rd year)
Vijay sai (2nd Year)
- ❖ Our **Football Men** team secured **Runner up** with a cash price of Rs. 7000 & Trophy at '**Chancellor's Trophy**, 2015 from 21st to 24th Sep, 2015 at Hindustan University, Chennai.

Students Name: Goutham K (3rd year)

- ❖ Our **Handball & Football Men** team won **Third Place** in '**Buck Memorial Tournament**' held from 18th to 21st Aug 2015 at YMCA College of Physical Education, Chennai.

Students Name: Pragadeeshwaran M (1st year)

- ❖ Our **Tennis Team** secured the **Third Place** in **SSN Trophy-2015** held from 25th to 28th Aug, 2015 at SSN, Chennai.

Students Name: Venkateshwaran J (3rd year)

Vijay sai (2nd Year)

Student Articles:

NANOELECTRONICS

Our everyday life is helpless without electronics. This is enough reason to say that the branch of electronics and communication continues to amaze us with various inventions which ease so many of our endeavours. I think every household has an LED TV. My grandfather's house however, still has the old model of colour TV, with a huge picture tube at the back. It's amazing how the size of the TV could be reduced to such an extent. Now, that's just the beginning of the wonders the study of electronics and communication is capable of.

Nanoelectronics are the upcoming field and it holds answers for how we might increase the capabilities of electronic devices while reducing their weight and power consumption. By increasing the density of memory chips, researchers are developing a type of memory chip with a projected density of one terabyte of memory per square inch or greater.

This reminds me of a professor's lecture in class, she was giving us incite on how system on a chip (soc's) was being developed. This can be achieved by reducing the size of transistors used in integrated circuits. This way it may be possible to "Put the power of today's present computer in the palm of our hand".

SEVERAL APPLICATIONS OF NANOELECTRONICS ARE UNDER DEVELOPMENT:

- Integrating SILICON NANOPARTICLES components into CMOS integrating circuits. This optical technique is intended to provide higher speed data transmission between integrated circuits that is possible with electrical signals.
- Building TRANSISTORS FROM CARBON NANOTUBES to enable minimum transistor dimensions of a few nanometres and developing techniques to manufacture INTEGRATED CIRCUITS BUILT WITH NANOTUBE TRANSISTORS.
- Using semi conductor Nanowires to build transistors and integrated circuits.
- Combining gold nano particles with organic molecules to create a transistor known as a NOMFET (Nanoparticle organic memory field effect transistor).
- Developing molecular-sized transistors which may allow us to shrink the width of transistor gate to approximately one nm, which will significantly increase transistor density in integrated circuits.
- Using nanowires made of an alloy of iron and nickel to create dense memory devices. By applying a current magnetized section along the length of the wire. As the magnetized sections move along the wire, the data is read by a stationary sensor. This method is called race track memory.
- This way nanotechnology may offer new ways of working for electronics. Nanotechnology can offer greater versatility because of faster data transfer, more "On the go" processing capabilities and large data memories.
- So let us hope we are able to continue to come up with new technologies. Because after all we started out with telephone, radio and then during World war-2 with radar and sonar communication systems and look where we are today!

**-JEMI ANUGRAHA
ECE, 3A.**

Referred- www.understandingnano.com

Tech specs

1. APPLE PENCIL

Apple's pencil is a handsome, pure white stylus that connects to the iPad via Bluetooth. Just touch the pencil to the Pro and magical digital ink will flow straight out of its nib. It's almost like writing on paper, if paper came covered in glass and cost Rs.67,900 per sheet.

As someone who prefers writing over typing, I loved scribbling ideas down on the iPad Pro. I would be great if the native Notes app could convert my handwriting into text, like Livescribe's smartpens do, instead of saving the scrawl as a picture. Still, at least the app is smart enough to differentiate between your palm and pencil, so you don't get to give yourself cramp using it awkwardly.

WOW!!!

2. Smart Keyboard

If you can only afford to buy one iPad Pro accessory, then go for the Smart Keyboard. Given that Apple's saying this megatablet can replace your MacBook or Windows PC, you're going to need one, to type on it, and type properly.

The Smart Keyboard is covered in a smooth, mesh-like fabric that's resistant to water and stains. The keys have a nice touch, with more depth than you'd expect, and it connects in seconds. Magnets give the keyboard a surprisingly sturdy hold on the iPad Pro. The triangular fold at the back gives it plenty of stability in your lap. If you're used to a MacBook, the keyboard layout is the same.

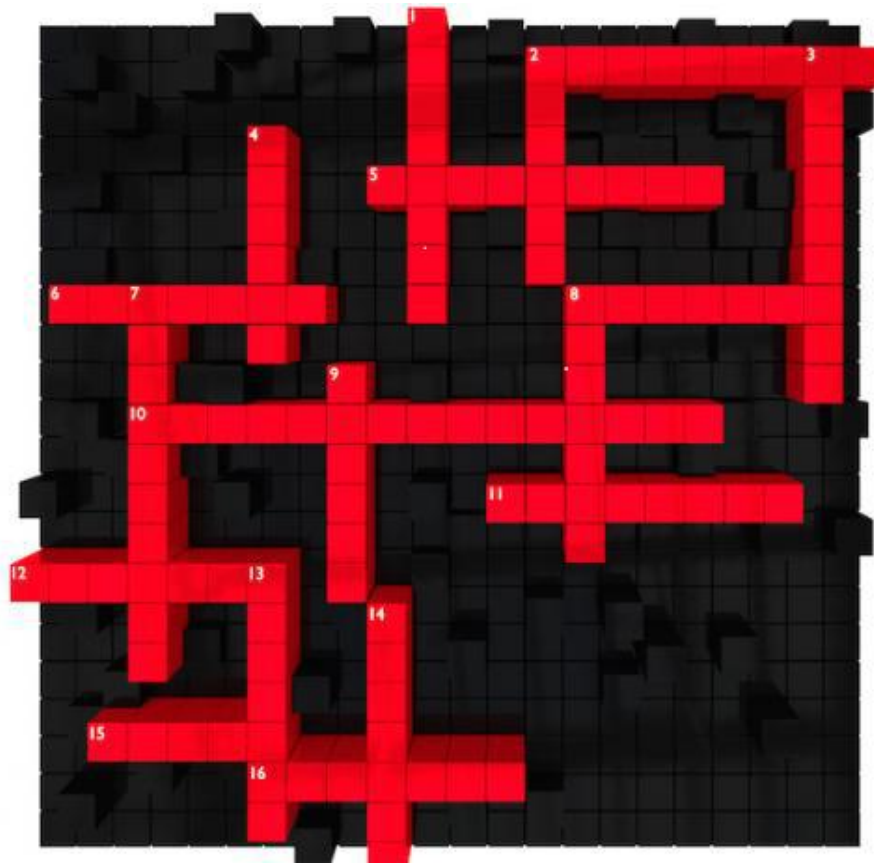
So, do get one!!!

Courtesy: apple.com/in

Mrs. B. Thyla

AP/eee

CROSS WORD



Across

2. A diagram that shows the electrical connections of the electronic components
5. Current is considered to be the movement of _____.
6. A voltage source that converts chemical energy to electrical energy
8. A flow of electric charge
10. A characteristic of a secondary cell
11. A material that is composed of a mixture of elements
12. The term used to designate electrical pressure
15. A short circuit will have a _____ current flow.
16. The part of an atom that has no electric charge

Down

1. A voltmeter is used in _____ with the circuit.
2. A device that opens or completes an electrical path
3. A material that opposes the movement of free electrons
4. One coulomb passing a point in one second
7. A resistive component that is designed to be temperature sensitive
8. A unit of charge that contains 6.25×10^{18} electrons
9. An atom's atomic number is determined by its number of _____.
13. A substance that is found only in its pure form
14. It is used to measure current.

Student Corner



Nandhini.S

ECE 6B