" Mankind willfully changing the global electromagnetic radiation environment has created what I expect will become known as the man-made evolution era. " — Steven Magee

EDITORIAL DESK

Hello!!! We are happy to welcome you all aboard the fledgling 9th edition for the scintillating year 2018. TECHINNOVATION is the newsletter of the ELECTRONICS & COMMUNICATION ENGINEERING which aims to bring forward the buzz from the department in the past few months. The edition demystifies the realms of Electronics & Communication Engineering and also provides insight to the latest technology adopted in the field. Hope our deeds would ignite everyone's life!!!

HOD'S DESK

It is a theme of happiness to articulate with all of you Through this 9th newsletter. Within these pages you will Find much news related to Diverse activities from the Whole faculty and students Of ECE department. I am cheerful for the initiatives taken by the faculty to disseminate knowledge by organizing various activities in the department. I hope everyone will find this news letter Exciting and interesting.

ECE DEPARTMENT

Department of Electronics and Communication Engineering was started since the inception of VIGNAN'S Institute of Management and Technology for Women during 2008 with an initial-

intake of 60. The strength was enhanced to 120 during 2005. The Department had added Post graduate program in VLSI during the year 2012 and Embedded Systems during 2014 with an intake of 18 each. The Department is headed by well qualified
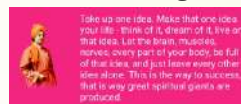
VISION

To transform the students into technologically competent professionals, with abilities to address the societal challenges of the time through innovative technical practices in electronics & ommunication engineering

MISSION

M1: To foster inquisitive-driven advanced knowledge building among students for reinforcing the domain knowledge, develop capabilities, skills and solve complex engineering problems
M2: To prepare industry-ready graduates for global Electronics as well as communication based engineering companies by conducting training programs, workshops and industry visits.
M3: To build leadership qualities, research aptitude among students for the contribution of economic and technological development in cutting edge technologies in national and as well as in the global arena.

BEST TECHNICAL ARTICLE BY Mr. J. SUNIL KUMAR

" BATTERY LESS INTRODUCTION" The smart phone we are using these days are indeed smart, however, are they really that smart as the companies claim? The answer to this question is yes, but aren't those really-

FACULTY DEVELOPMENT PROGRAM

Faculty Development Programme was organized in the month of may-2018 for the staff to enhance their knowledge and skills. **DR. P. SUDHAKARA RAO** Principal had an interactive session with the faculty members and shared his views on teaching.

CAREER DEVEPLOMENT CENTER AT VMTW

Who We Are: Our mission is to collaborate with fellow educators and community members to provide a transformative blend of liberal arts, experiential, and career education that is so well integrated, empowering, and responsive to student needs that it emboldens them to pursue pathways to personal, professional, and community engagement that might otherwise have remained hidden or unattainable.

PARENTS & TEACHER MEETING

Despite these occasional moments of friction, teachers should do their utmost to see parents as essential partners in their students' education. Parents can be valuable allies in helping students achieve their best, and meetings are a great way to forge those bonds. Conduct masterful, action-oriented parent-teacher meetings. Encourage them to ask questions, provide updates, and express concerns as they see fit -

CULTURAL ACTIVITIES

- **WOMEN'S DAY CELEBRATIONS**
- **HOLY FESTIAL**

INDUSTRIAL/ INTERNSHIP/ SUMMER TRANING

The Students have attended an internship program by BITS PILANI and M/s ECIL where they have gained knowledge in designing an embedded product,-

BEST STUDENT TECHNICAL ARTICLE BY

S.VARSHINI, IV ECE

Title Name : ATM SECURITY USING EYE AND FACIAL RECOGNITION SYSTEM

RESEARCH PUBLICATIONS

Title Name

1. "ASIC Implementation of Low Power Efficient Crosstalk Analytical by LUT-BED-CLA"- international journal of intelligent engineering &systems, march 2018.

Title Name

2. RFID Integration with Wireless Sensor Networks

Title Name

3. Performance of IP-Based Wireless Sensor Network with 1-M Granularity Cartesian Terrain

Title Name

4. Performance Comparison of RIPv2 and DSR protocols in customized ZigBee stack with 5 nodes

CAREER DEVELOPMENT CENTER AT VMTW

- **Assess interests, values, and skills relating to academic and career interests**
- **Helping students to choose majors and minors, and making career-related decisions**
- **Exploring new ideas on professions, industries, applying to graduate programs**
- **Assist in obtaining Work-Study jobs, internships, jobs, and career positions**
- **Prepare for interviews**
- **Helping in preparing resumes, cover letters, and job applications**

EMPLOYABILITY ENHANCEMENT

Both offline & online training program's assessments are conducted covering problem solving skills (Quantitative aptitude, verbal ability, Logical reasoning) & soft skills such as behavioral skills, Communication skills, interpersonal skills, mock interview, mock & GD. Besides the above, technical training is provided in the form of certification courses which are relevant to recent in industries.

COMMUNICATION SKILLS

Proper blend of soft skills and aptitude/ verbal proficiency courses are included in the curriculum as complementary skill courses since second semester, which is made mandatory for the successful completion of the degree. Aligning to the placement objective, training is also given in the form of value added/ certification courses in par with the industrial demands. Online support for practice and assessments, Mock interview and Group Discussions by corporate experts were also organized.

S.No.	Course Title	Year	Sem	Training Details
1.	Soft Skills-I	III	I	Quantitative Aptitude, Logical Reasoning
2.	Soft Skills-II	III	II	Quantitative Aptitude, Logical Reasoning, Verbal
3.	Aptitude Skills-I	IV	I	Quantitative Aptitude, Logical Reasoning, Verbal
4.	Aptitude Skills-II	IV	II	Quantitative Aptitude, Logical Reasoning, Verbal
5.	Employability Skills-II	IV	II	Quantitative Aptitude, Logical Reasoning, Verbal
6.	Readiness Assessment Programme	IV	II	Mock Test, Group Discussion, Interview

FACULTY DEVELOPMENT PROGRAM

Faculty Development Programme was organized in the month of may-2018 for the staff to enhance their knowledge and skills. **DR. P. SUDHAKARA RAO** had an interactive session with the faculty members and shared his views on teaching. FDP was conducted for improving the knowledge and skills of the faculty, so that they can share their knowledge with the students, and improve the teaching experience. It was an enlightening experience for the

RESEARCH PUBLICATIONS

Sl. No.	Title of the Paper	List of Authors	Journal Name	Year of Publication	ISBN/ ISSN/ Impact Factor
1	RFID Integration with Wireless Sensor Networks	Dr.A.Narmada& Dr.P.Sudhakara Rao	Research Journal of Engineering and Technology	2018	0976-2973 (Print) 2321-581X (Online)
2	Performance of IP-Based Wireless Sensor Network with 1-M Granularity Cartesian Terrain	Dr.A.Narmada& Dr.P.Sudhakara Rao	International Journal of Applied Research on Information Technology and Computing	2018	0975-8089
3	Performance Comparison of RIPv2 and DSR protocols in customized ZigBee stack with 5 nodes	Dr.A.Narmada& Dr.P.Sudhakara Rao	International Journal of Applied Research on Information Technology and Computing	2018	0975-8089
4	ASIC Implementation of Low Power Efficient Crosstalk Analytical by LUT-BED-CLA	Mr. BattariObulesu and Dr. P. Sudhakara Rao	International Journal of Intelligent Engineering & Systems	2018	2185-3118

INDUSTRIAL/INTERNSHIP /SUMMER TRAINING

The Students have attended an internship program by BITS PILANI and M/s ECIL where they have gained knowledge in designing an embedded product, PCB design and fabrication process that was a hand on experience and in the entire course they have mainly concentrated on designing the embedded products. The Internship details are mentioned

S.No	Student Name	Type of Training	Duration	Organizatin	Award if any
1	K.SAI KRUPA, III ECE	INTERNSHIP	01-06-18 TO 21-06-18	CODE BEAT AND TBI-BITS PILANI	PARTICIPATION
2	G.SHIVANI, IIIECE	INTERNSHIP	01-06-18 TO 21-06-18	CODE BEAT AND TBI-BITS PILANI	PARTICIPATION
3	P.VIDYULLEKHA, IV ECE	PROJECT INTERNSHIP	14-05-18 TO 13-06-18	ECIL	PARTICIPATION
4	M.V.LIKHITA, IV ECE	PROJECT INTERNSHIP	14-05-18 TO 13-06-18	ECIL	PARTICIPATION
5	K.SONIA, IV ECE	PROJECT INTERNSHIP	14-05-18 TO 13-06-18	ECIL	PARTICIPATION

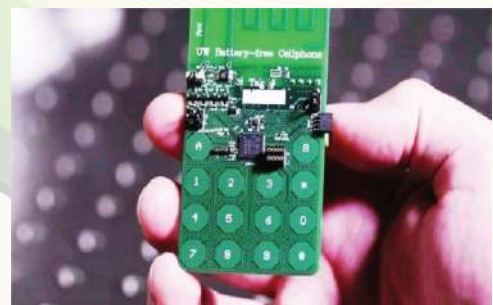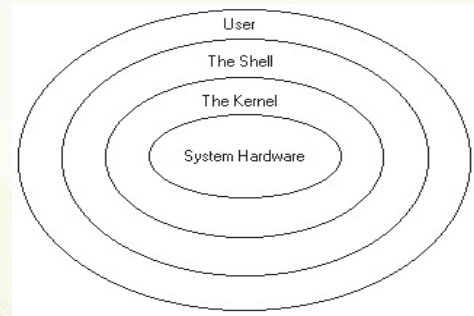## ARTICLE Title Name: BATTERY LESS INTRODUCTION

INTRODUCTION: The smart phones we are using these days are indeed smart, however, are they really that smart as the companies claim? The answer to this question is yes, but aren't those really dumb if discussed in terms of battery life? Yes, they are. Even the -companies that sell smart phones at phenomenal rates have the issue of battery's performance [1]. The performance is better as compared to others, but it is still a mystery if discussed in terms of long life. The idea of battery less smart phones was initiated by a group of researchers from "The University of Washington", who invented the phone with a dial pad, and to the next level of astonishment, the phone was designed so that it could harvest energy from "Radio Signals". The phone developed, features a dial pad, a small led light, and will also include an E-ink display.

CONCLUSION:

It was extremely astonishing to witness that a group of researchers have finally developed a phone that uses no power, which means the phone has no battery and harnesses energy from ambient signals and light sources. Even Mr. Jobs, who designed the first ever smart phone, might have never thought that smart phones would be that smart that someday we would be able to use it without a rechargeable option, that is without a battery. The phone just consumes 3.5 microwatts of power and harvests energy from ambient radio and light sources with the help of minute diodes that convert light and signal strength into a current which is furthermore converted into few microwatts of power. With the phone, we can just dial a number and call to another person.

The phone possesses a backscatter that sends the digital packages back to the cellular base station. The base station then receives the signals and connects the call through Skype. The battery less phone obtains signals with the help of zero power amplitude modulation and transfers audio onto our earphones. To respond, the user has to press a button and speak into the microphone. Even after combining these amazing technologies, the phone has multiple disadvantages, Range being the biggest one. As per the rate of growing technology, these limitations will be fixed soon with all the Wifi routers having RF emission sources, and we would soon witness an 'Advance Battery

STUDENT ARTICLE

Title Name: ATM SECURITY USING EYE AND FACIAL RECOGNITION SYSTEM

INTRODUCTION:

The rise of technology into India has brought into force many type of equipment that aim at more customer satisfaction.ATM is one such machine which made money transaction easy for

customers to the bank. But it has both advantages and disadvantages. Current ATMs make use of naught more than an access card and PIN for uniqueness confirmation. [1]This has ATM Using Face Recognition System demonstrate the way to a lot of fake attempt and mistreatment through card theft, PIN theft, stealing and hacking of customers account details and other parts of security. This process would effectively become details and other part of security. This process would effectively become an exercise in pattern matching, which would not require a great deal of time.

CONCLUSION

We thus develop an ATM model which provides security by using Facial verification software adding up facial recognition systems to the identity confirmation process used in ATMs can reduce forced transactions to a great extent. Using a 2d and 3d technology for identification is strong and it is further fortified when another is used at auntheticiation level
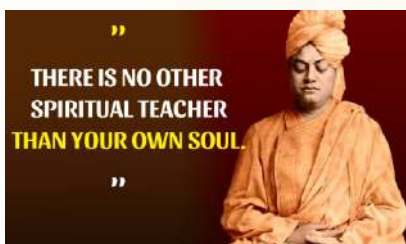
CULTURAL EVENTS

HOLI FESTIVAL

Student life here in this college is never dull, however this march -01 was a particularly colorful one with VMTW students participating in HOLI. the HOLI festival is an ancient Indian tradition which celebrates the triumph of good over evil. Coloured powder is thrown and rubbed on people's faces and people come together in song and dance. The festival is filled with so much fun that the very mention of the word Holi brings a smile to anyone's face. HOLI also celebrates the arrival of spring, a season of joy and hope. The Holi day was the perfect reminder of all the benefits of studying in an international program because of all the fun that can come from learning about different people's cultures.

WOMEN'S DAY CELEBRATIONS

One of Hyderabad most prominent and reputed institute VMTW College celebrated womanhood on International Women's Day but with a different fervor. Bringing together all the female staffs (teaching and non-teaching, students of final year college decided to hold an interactive session where everyone could put forward their views and perspectives freely. Centered on the theme "BEYOND CLASSROOM: CELEBRATING WOMANHOOD", an idea generated by HOD the female colleagues exchanged several views on topics related to both personal and professional lives. Beyond Classroom is the college newsletter, discussed on various issues in the society.

DR.ALAPARTHI NARMADHA, Head of Department of electronics and communication engineering also the editor of the newsletter, said, "The purpose behind publishing a special edition of "Beyond Classroom: Celebrating Womanhood" was to bring to light the hidden talent of the female teaching and non-teaching staff of the college. It is not just about highlighting their talent but also about laying focus on pertinent social and economic issues for further betterment of amenities. This will enable us to enhance the efficiency and performance of our staff.

THERE IS NO OTHER SPIRITUAL TEACHER THAN YOUR OWN SOUL.

THE ENDEARING SPREE
   CONTINUES WITH THE NEXT........