POSITRON 2019

The +ve Charge

DEPARTMENT
OF
ELECTRONICS & COMMUNICATION ENGINEERING
Accredited by NBA

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HIGHLIGHTS OF THE CURRENT EDITION:

- Perspectives from the Department
- Faculty publications
- Chief Editor's Page Article by Dean
- University Innovation Fellows
- Student articles
- Placement updates

Dr. N. Vijaya Bhaskar Choudary, M.Com, Ph.D.
Secretary & Correspondent

Technology places a vital role in shaping a student's career. ECE Department provides excellent opportunities for the students to discover their potentials. If students are able to go out of college with flying colors, it's no exaggeration to say that it's only because of the supportive environment that is provided in the college. POSITRON provides a glimpse of the activities and achievements in ECE Department. Students must make use of the opportunities provided to them in order to excel in their career. They must aim high. Students should consider technology as a treasure box and make proper use of it to achieve their goals. It gives me an immense pleasure looking at the efforts put by the ECE department, in coming up with creatives ideas to design a newsletter every year.

Sri. N. Krishna Kumar, M.S (U.S.A)
Chairman

The Electronics & Communication Engineering Department has produced many phenomenal students who are at very good positions. Students graduated from our college, come back here and support the institution to the best of their abilities. I advise the students to have a clear vision about what they want to become and plan accordingly at the earliest possible stage. They must gain practical knowledge rather than mere bookish knowledge to reach greater heights in their career. They must convert their ideas into reality and must not refrain from trying out new things. I hope the Department continues to achieve success in every aspect and publish the achievements in this incredible magazine every year.

Dr. C. Yuvaraj, Ph.D.
Principal

The technological information dissemination to public is the key factor in bringing concerned people/Department together. The Department of Electronics and Communication Engineering contributing best of its efforts in development of technical temper by publishing newsletter "POSITRON". The documentation of different activities and bringing it to relevant technical community is the excellent towards service of society. These activities will help in making the science and technology much stronger towards knowledge bank. I am congratulating all the ECE department staff and students on this occasion.

Dr. K. R. Kashwan, Ph.D.
Sr. Professor & Dean,
Department of Electronics and Communication Engineering

It is indeed a great honor for me to congratulate the faculty, students and staff of the department of ECE for compiling newsletter, POSITRON 2K19 edition. This creates an opportunity for all of us to work in a team that adds value for any of the academic processes. The newsletter provides us with an opportunity to demonstrate our competency and creativeness. I am sure there must have happened a lot of learning experience during the process of compilation of newsletter.

The success ladder for our students are conquered with the training and guidance from faculty of ECE who are very important not only from the examinations and placements points of views but also in entirety of successful citizenship throughout students' life. The mentorship goes much beyond classroom boundaries and program tenures. I am sure the teachers must have done justification of their purpose being for the students. I wish every teacher an inner strength to serve the very noble cause of mentoring students for the best. The teachers are lifelong students and thus can understand the significance of updating their knowledge by way of research, publications and patents.

It is imperative on the part of each teacher to involve in active research for value addition. Our students are doing well in the placements and competition examinations. Students have won many awards and appreciations. We wish all the best for more and more laurels in the years to come.

We value our students' capability and interest in activities other than classrooms. The students are the most important visitors to our campus. Our faculty must make teaching very interesting so that students enjoy learning with passion. Only our sincere and consistent efforts will make teaching a very interesting phenomenon. This can only happen if teachers are innovative and creative in classrooms. The biggest challenge of teachers is that how to cope up with fast changing and emerging technologies. A good teacher is a good researcher and a good researcher is a good teacher. The research activities will help us in learning newer trends and creativeness which will also help us transferring the knowledge in classrooms with effectiveness. We have added few classrooms and lab equipment during the year and there are further plans for upgrading laboratory equipment, software and other infrastructural facilities. The management is all out to support the good cause of institutional growth.

I congratulate and appreciate all the efforts to bring out the newsletter for the ECE department. I express my thankfulness to all coordinators and conveners of the program. I, on the behalf of the entire team ECE, express sincere and heartfelt thanks to principal and management of MITS for giving an opportunity. I wish a very successful symposium for the students and faculty where a lot of learning experience should be taking place. All the best.

PERSPECTIVES FROM THE DEPARTMENT:

Every year of Positron edition brings you brief transcripts of the talk with the entire faculty team of ECE department. The following questionnaire presents a few of the highlights of salient features of day to happening in the department. It also includes our vision for the future planning and expected course of journey we intend to take up.

Q. What are the department targets for the year 2018-19?
Our Department targets the following:
- Improving teaching learning processes and curriculum under outcome-based education system.
- Bringing out high quality research publications, patents and technology transfer for product development.
- Establishing Center of Excellence in R&D in the frontier areas of research and development such as IOT, embedded systems, wireless communication and intelligent technologies.
- Achieving high placement record of at least 90% of enrolled students.
- Improving R&D consultancy work and funded projects and revenue generation by way of continuing education programs.

Q. What are main objectives of setting up of center of excellence in R&D and how is this going to be helpful?
Setting up of center of excellence in R&D in the current technological trends as mentioned above will provide opportunities to students and faculty to undertake research in these areas. The center will be equipped with latest equipment and software. The department faculty will be able to publish quality papers and industry standard technology transfer for commercialization. It serves individual faculty's and institutional benefits simultaneously. Students can do their projects in the center.

Q. What are the areas of research that the department is currently focusing on?
Presently the department is focused in active research in the field of IOT, big data, wireless communications, microstrip and patch antenna, embedded systems, smart sensor technology, image processing, cognitive radio, VLSI design and cryptography, Smart Nano-materials, Nanotechnology, Renewable Energy.

Q. What were the major outcomes of the workshop on Image Processing, Artificial Intelligence as well as Automation and Robotics conducted in Nov. 2018 and Feb. 2019 respectively?
Major outcomes of the workshop are as follows:
- Participants got benefited by gaining about computer vision, machine learning, and artificial intelligence. Applications of image processing in defense, medical and surveillance sectors. In another program, students came to know about the factory automation using different types of robots.
- The program disseminated well documented knowledge on the implementation of machine tools, Industrial IoT and Robots.
- Both the programs also shared the information to students about the opportunity created in the respective fields.

Q. Were there any changes made in the teaching learning process to benefit the students?

Students are encouraged to take MOOCS online course in each semester. This is helpful for students to learn via online platform. It is also an opportunity for learning by novel method compared to the conventional class room teaching.

The students are encouraged to undertake multi-disciplinary projects in latest fields of technology within the campus.

Students are encouraged to take summer internships for practical exposure.

A full semester industry internship projects are optionally available for the students of IV Year II Semester, if they desire or they get opportunity

The internship is essential for students to learn what is happening in industries. The students also design real time application solutions for engineering solutions.

Q. What is going on in the present electronics industry and how is MITS preparing its students for that?

Electronics industry is all set to rapid changes and newer technology is invented frequently. Coping with this fast change is really big challenge for students. MITS is, however, well prepared to handle the fast-changing technology. Our faculty undertakes various courses and training on new trends in the industry. Our focus is on IOT, embedded system, VLSI design and communication systems. This helps students for better placement opportunities. Apart from that, placement training sessions are conducted for students to improve their aptitude and reasoning skills.

All faculty member of ECE provide rigorous technical training to students to improve fundamental and core subject knowledge.

Q. Where is the department heading for and what are its current strengths?

The ECE department has well experienced faculty with 14 of them having doctorate degrees in various specialization and another 13 faculty members are pursuing PhD. Faculty members have currently funded research projects of worth Rs. 34.90 lakhs from funding agencies such as DST and UGC etc. The department has taken up interdisciplinary research in collaboration with other department for meaningful and real time projects. The department has well-equipped laboratories and software facilities available for the students and faculty for research and teaching learning process.

Q. What innovative and creative work can be expected from the department in the current academic year?

Actually, a lot can be expected from the department in the current academic year as faculty are actively involved in research and development. There is a plan to start in-house practice school training for students. This training will improve student's practical knowledge in real time application system design capability. Also, the faculty are encouraged to teach using multi-media techniques. Also in-house mentoring and guidance is provided to the students by the department faculty for

Improving placement efforts.

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CHIEF EDITOR'S PAGE:

Congratulations of becoming an ECE Engineer. What next?

Parents of our students expect a better life after their children graduate with a B.Tech. degree in ECE at MITS.

After graduation, students usually choose either (i) to work in public/private service sector, (ii) to set up a startup company AND/OR (iii) to pursue higher studies.

MITS students have been getting good placements every year [This year 180 students of ECE department got placed in leading companies].
Further, students interested in higher studies have been going abroad for fulfilling their dreams. Recently, MITS has signed a Memorandum of Understanding (MOU) with Ming Chi University of Technology, New Taipei City, a leading University in Taiwan. This initiative will enable MITS students to pursue higher studies in Taiwan with Scholarships.

"Business incubation is a unique and highly flexible combination of business development processes, infrastructure and people designed to nurture new and small businesses by helping them to survive and grow through the difficult and vulnerable early stages of development."

For students interested to become an entrepreneur, MITS is striving to provide a pathway which is in line with our PM's "make in India", Skill Development and Startups programme. We all must feel proud to know that MITS has been short listed by NITI AAYOG (the new avtar of previous Planning Commission of Central Govt) to establish an ATAL INCUBATION CENTRE (AIC) at MITS Madanapalle. If selected, MITS would get a grant of nearly 9 Crores. Two faculties from ECE Department are actively involved in this endeavour to foster the mission. Also, MITS has approached the DST with a proposal to set up TBI (Technology Business Incubation) centre with an estimated cost of Rs.17.5 Crores. If MITS gets the funding from either AIC or TBI, we will open a Business Incubation Centre I MITS. Such a facility will certainly provide valuable training to our students for becoming successful entrepreneur.

We are constantly putting efforts to make each student to excel in their interesting field.

With best wishes to all,

Dr. Remashan Kariyadan,
Sr. Professor
Department of Electronics and Communication Engineering

ARTICLE:

COMMUNICATION IN ENGLISH IS EXTREMELY IMPORTANT FOR PLACEMENT

We are faced with challenge to speak and communicate in English as effective as possible. All of us have English an acquired language which poses a steep challenge of speaking effective English in a day to day life at industry and educational institutions. The inherent requirement arises from the facts that engineering educational contents and literature are available only in English. This is also a mandatory requirement for delivery of contents in classrooms, knowledge transfer and placement efforts. We also know that all examinations and interviews for placement are conducted only in English.

The industry speaks only in English. This leads to a twofold challenge for a teacher. First understanding contents of standard text books authored by world class experts and second to transfer the contents from these books to the students' community in an effective manner. The second part is an essential requirement if teachers want to be successful at all. The knowledge transfer is the sole objective of any given classroom environment. A quality educational institution is always concerned about how much knowledge transfer takes place in a given classroom combination of teacher-students at any time. The medium of instructions for transferring knowledge is only and only in English. Done well everything else but for the want of English, knowledge transfer will adversely be affected. This also leads to impacting placement adversely. One can assume how critical is the English for a teacher in classroom.

For the students, there are two essential needs of English as well. The first is indeed the same as of teachers' requirement of learning from text books and to comprehend the same in the class during a teacher's lecture. The second one is related to how to express what has been learnt. This is the most critical as it makes to job market or ruins the hopes of students' getting job in dream companies. Many companies have expressed, during feedback sessions, that student aren't able to communicate effectively, though they may have reasonably good subject knowledge. The English communication has again, in the case of students, done in for the good and for the bad.

The teachers and students must realize that English speaking is something indispensable. Now, therefore, comes a question of how to improve English speaking. It's all about long patience and perseverance with focused attention all the times that one should start speaking right now and continue for the rest of the life. The biggest hurdle of speaking English comes from peer-pressure. One has to handle this effectively. Normally, the most of the students stop speaking English with their classmates, except when it is formally required, such as during interviews, viva and may be to answer a question in classroom. This is not sufficient.

If one wants to master English communication then, there is only one way of speaking all the times with everyone else who understand and follow English. The best way to counter the peer comments is to ignore the same. If one reacts to it, then there is a hurdle. And, if one ignores it, then there is hurdle on the other side, making comment. This is because, they feel that there is no reaction from target and hence they are probably wasting their time. This will work in to help one. By now, one has crossed hurdle for oneself and created a hurdle for commenters. This is sure way to improve English. Not only this, a few other students will also follow the same path. This will have a cumulative effect and improve exponentially.

To sum up the theme of how to improve English communication, one must start speaking it. There is a good opportunity for the students during their college years where all of them can reasonably follow English. The students, staff and faculty must take a pledge of MITS, that we will speak only and only in English during college hours no matter how wrong or right our English is. Let us not be conscious about that. The more we speak, the more we learn it and the more we improve upon mistakes.

Dr. K. R. Kashwan
Sr. Professor & Dean
Department of Electronics and Communication Engineering

Bio-Resonance

The bio-resonance is the process using which one can transfer the energy from one point to another point. The nature is an infinite source of energy. Human is a part of nature, the origination and survival is totally based on the phenomenon occurred in nature. We can collect the energy from the sources available in the nature. In fact, we can enhance the rate of absorption of energy. The bio-resonance is the process using which human can be combined with the nature in more efficient manner. The process of bio-resonance is simply based on the phenomena of resonance.

-Dr. Gaurav Varshney,
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Bio-Resonance
A way of energy transfer

Resonance is the phenomena existing in nature creating the unlimited source or sink of energy. In general science, the resonance is well defined by the matching of natural frequency and frequency of oscillation.

The bio-resonance is the process using which one can transfer the energy from one to another matter. The nature is an infinite source of energy. Human is a part of nature, the origination and survival of human is totally based on the phenomenon occurred in nature. We can collect the energy from the sources available in the nature. In fact, we can enhance the rate of absorption of energy. The bio-resonance is the process using which we can be combined with the nature in more efficient manner. The process of bio-resonance is simply based on the phenomena of resonance.

The concept of bio-resonance is mostly based on the sound waves. Each particle of the universe is in motion creating the sound waves. Somehow, if we create such sound which is having same frequency as the frequency of sound wave created by the movement of particles available in the nature, we can find the effect of resonance which can affect the photons, positrons and other particles of the blood plasma.

The effect and applications of bio-resonance was explored in India during the ancient period. The example and usage of bio-resonance can be found in our literature. The questions is "what is the significance of sound created by the pronunciation of ॐ?" "What is the significance of the *mantras* available in our literature?"

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These were the most scientific tools based on the concept of bio-resonance invented by our ancestors for the treatment of the human being. ॐ is the sound created by the motion of the particles of the universe. If we can pronounce this sound in more similar manner as the universe, the effect of resonance occurs. This is the sound available which only creates the constructive interference. The effect of the resonance created by this sound is directly on our brain-waves. During the most peaceful time when the external sounds of the universe are not present, the pronunciation of this sound supplies energy to the particles available in human body.

The example of next experiment related to the sound waves is the "*Gayatri Mantra*" this is a modification in the sound of ॐ. The pronunciation of the *Gayatri Mantra* helps in waking up the parts of the brain which are less utilized by the human being. In the similar manner, the other *mantras* are available using the effect of which we can create the resonance according to our need.

We can create the resonance in accordance of the requirement of our body. We can treat a number of diseases just by doing the experiments related to the sound waves. I have a strong belief that the diseases like cancer, related to brain and skin can be healed by the effect of resonance. Meditation is one process which can help in creating the effect of resonance.

The effect of the bio-resonance is not only limited to the our body, it is the way to connect your soul with your mother, because both are having the same level of particles in the plasma of blood.

This article is just a summary, I am continuing with the research related to the bio-resonance to explore its effects and applications. Till now, any scientific proof is not available in the literature but it is *technical* mostly not an *orthodox*.

Dr. Gaurav Varshney
Sr. Asst. Professor
Dept. of ECE

Nanotechnology: Today & Future
Smart Dust Sensor
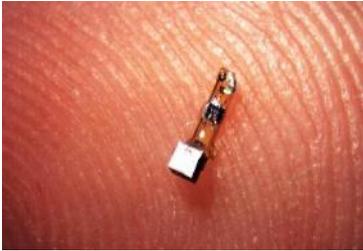
The smart dust concept is one of millimeter-sized (dust sized) devices, which can perform a number of 'smart' activities including sensing vibration, temperature or chemicals. These devices can also communicate with each other or back to a central hub and possibly even perform activities. Developments in microelectromechanical systems (MEMS) have supported smart dust progress but few devices are achieving the millimeter scales required. The miniaturization of the technology needed to achieve smart dust (power, sensing, and communications) has not been in sync, with sensing capabilities generally being ahead. Some prototype devices have been made that are invisible to the naked eye but do not fully function as smart dust due to a lack of power or communications. While some devices have been demonstrated to be fully functioning smart devices in the sub-cm scale, the achievement of true 'smart' dust size devices still seems to be some way off. However, longer term, the possibility of low cost smart dust devices that can be deployed in their thousands, or even millions, to achieve smart data gathering is entirely plausible. In the short-term devices that are slightly larger than 1mm are already performing all of the actions required to be 'smart'.

Applications:
- ➢ Invisible tagging;
- ➢ tracking of products;
- ➢ commercial data gathering;
- ➢ In vivo medical analysis;
- ➢ Hazardous environment/remote location data gathering.

These are at varying levels of maturity.

Limitations:
- ➢ Energy supply and wireless communication methods are two key weaknesses.
- ➢ Despite sensing technology being available at the right scale, without energy supply and wireless communication, a complete system is unachievable.

Trends & Challenges:

Current trends focus on the miniaturization of devices to sub 1 mm scale and also methods to power such devices. Commercial organizations wishing to use such technology to invisibly capture data about, and communicate with, its customers will drive development. Devices will be built into non-electrical products, such as clothes, and used to detect information such as location and temperature to inform marketing approaches.

Application in Defense Sector:

Smart dust provides both a potential threat and opportunity to defense and security. Smart dust deployed to perform surveillance will, by definition, be hard to detect visually. Therefore, without advanced methods of detection in place, smart dust could provide a serious threat to the retention of sensitive information and opportunities for intelligence gathering. Smart dust could also be deployed actively to sabotage electronic networks or, for example, disrupt power supplies. The nature of smart dust will challenge the existing security measures put in place to protect secret information in military establishments that currently don't allow external electronic devices. In new defense platforms, smart dust could be used for information gathering on the condition of the platform, for example, embedded into paint to monitor corrosion, temperature or humidity. Integrated Vehicle Health Management (IVHM) is a technology area that should benefit greatly from progress in smart dust.

Mr. Debashish Dash
Asst. Professor
Department of ECE, MITS

UNIVERSITY INNOVATION FELLOWS (UIF):

Below mentioned list of students from ECE got selected for the program:

S. Vishnu Sai: BSNL inplant training, ECLATECS 2K17 - IOT Jntu kalikiri
Veerendra prasad: Unamnned ground vehicles

S. Tabraiz Hussain: Unamnned ground vehicles

V.Vijay Krishna: Unamnned ground vehicles

B. Yamuna : Latex, design thinking

P Arjun Chakravarhti: BSNL implant training, ECLATECS 2K17-IOT, Tech Quiz.
S Yuvamanjunath Reddy: Photon, ECLATECS 2K17-IOT, Tech Quiz.

STUDENT ARTICLES:

**Synthesis and Characterization of TiO₂ Nanoparticles**

We have reported the Synthesis of TiO₂ Nanoparticles via sol-gel route and characteristic change that occurs to crystalline structure by changing the molar ratio of titanium (IV) isopropoxide and Deionized water (preparing two different solutions with two different molar ratios), pH values and analyzing characteristics by XRD Analysis. Titanium dioxide nanoparticles are also known as ultrafine titanium dioxide. Each particle has the diameter around 0-100nm. Now a day's size of the nanoparticles is playing a key role in the nanotechnology. We have obtained the titanium dioxide nanoparticles from titanium (IV) isopropoxide, isopropyl-alcohol, DI water, nitric acid by maintaining the appropriate temperature and proper molar ratio of titanium (IV) isopropoxide and DI water. Nitric acid is used to adjust the pH value. Titanium dioxide is obtained in the form of liquid. We have deposited the titanium dioxide nanoparticles on to the clean silicon wafer (Cleaning has been done by RCA1 & RCA2) by using spin-coating method. XRD pattern of TIO₂ has been obtained using an X-ray diffraction schimadzu model: XRD 6000 CuKα radiation in the range of 10-700 ($\lambda = 0.154$nm) we have plotted 2θ values along x-axis and intensity along Y- axis. We have found the size of crystalline structure by analyzing XRD results by utilizing the Debye-Scherer's formula.

P. Sai Kumar,
D. Susmitha,
P. Deepika
IInd Year ECE

Self-Healing Materials
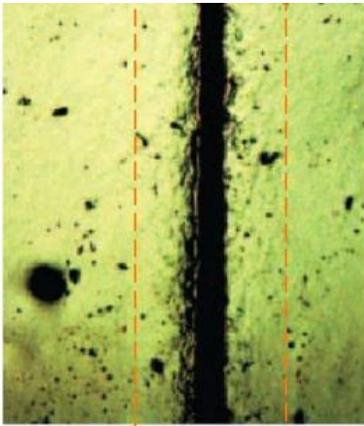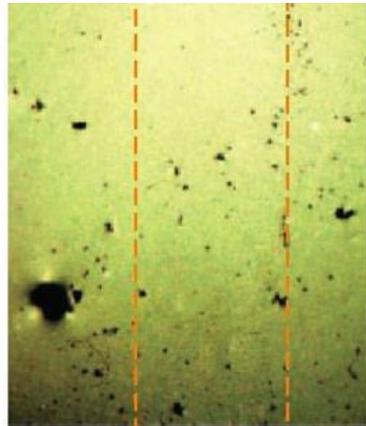
Damaged   Healed

Imagine cracks in damaged structures that close up on their own and dents that spring back into their original shape, or systems that can eliminate defective parts on a production line and thus remove the need for inspection. An ideal self-repairing material has sense-and-act behavior similar to that of smart materials, in that it can sense damage and then act in such a way as to repair this damage, automatically. Several players have developed and commercialized simple elastomeric polymer coatings that use energy from sunlight to change shape and remove light scratches—in particular for consumer-electronics applications. Perhaps surprisingly, a few solid materials already have intrinsic self-healing capabilities. Some concretes and rubbers can self-heal, thanks to the presence of residual raw materials. Researchers have also developed prototype composite materials—especially polymer composites—with self-repairing capabilities that require very little or no human intervention. A clear analogy is that of biological systems that automatically and autonomously initiate self-repair when they sustain damage. These prototype composites contain microspheres or microcapsules, fillers, and hollow fibers that contain chemical-recovery agents. Other researchers are developing self-healing systems that rely on shape-memory materials. In general, bulk materials have yet to see widespread commercial adoption.

Limitations:

Lifetimes and cost-effectiveness are still uncertain. Materials must prove at leastas reliable and strong in the first place as existing materials, otherwise substitution is unattractive.

Applications:

Current: Coatings for consumer electronics devices. Emerging: Electronic components and circuits. Future: Large structures for transportation, aerospace and defense, energy.

Trends and Challenges:

A great deal of recent R&D has focused on the creation of composite materials that can halt and repair small cracks that appear in a material under stress—especially composite materials. For self-healing technologies to see success, they must not only become cheap and easy to implement but also exceed the functionality of existing technologies by a margin.

Applications to the Defense:

Self-healing materials could make life a lot easier for operators of systems that are traditionally on the end of rough treatment; the defense sector will undoubtedly be in a strong position to benefit from this. Ultimately, self-healing systems could lengthen product lifetimes, increase safety, and reduce maintenance requirements. If successful, they could negate the need for some repair operations—perhaps after sustaining attack. Portable equipment and vehicles (manned and unmanned) being perhaps the most obvious examples of systems that could benefit from self-healing functionalities. Mission-critical electronics, sensors, and batteries would be robust if they featured self-repairing components. It is worth emphasizing caution with respect to defense applications; outside thin layers, structural self-healing materials remain some way from commercial availability.

By Suheab Khan
II Year ECE – D

APPLICATIONS OF ELECTROCHEMISTRY IN MEDICAL DIAGNOSIS FIELD

Electrochemistry provides a broad array of quantitative methods for detecting important analytes (e.g., proteins, nucleic acids, metabolites, metals) for personal and public health, clinical analysis, food and water quality, and environmental monitoring. Many devices are now being explored that attempt to connect Health with POC testing because these systems have been developed in, and often implicitly targeted towards the developed world. They typically require, (i) smartphones, (ii) custom applications (apps), (iii) third or fourth generation (3G/4G) data networks, (iv) proprietary connectors for sophisticated sensors that interface with diagnostic tests, and (v) a substantial level of technical sophistication.

Significance: The ability to perform electrochemical testing in the field, and in resource-limited environments and to transmit data automatically to "the cloud" can enable a broad spectrum of analyses useful for personal and public health, clinical analysis, food safety, and environmental monitoring. Although, the developed world has many options for analysis and web connection, the developing world does not have broad access to either the expensive equipment necessary to perform these tests or the advanced technologies required for network connectivity. To overcome these limitations, researchers developed a simple, affordable, handheld device that can perform all the most common electrochemical analyses, and transmit the results of testing to the cloud from any phone, over any network, anywhere in the world.

Electrochemical Applications: They used the device in four real applications that involve the detection of (i) glucose in blood by chronoamperometry, (ii) heavy metals in water by square wave anodic stripping voltammetry (SWASV), (iii) sodium in urine by potentiometry, and (iv) the malarial antigen Plasmodium falciparum histidine-rich protein 2 (PfHRP2) through a sandwich, electrochemical ELISA using chronoamperometry for the detection step.

Applications in daily life: A demonstration of the uMED network in operation. (A and B) The local user made a blood glucose measurement with the uMED. (C) Upon completion, the device automatically began to transmit repeated packets containing the measured value. (D) The user then connected the device to a mobile phone and placed a call to a remote Skype number. (E and F) The remote application (i) automatically recorded the audio-based data, (ii) extracted the encoded value, (iii) verified that it was error free, (iv) sent an acknowledgment tone back to the uMED, and (v) sent an SMS message (with relevant information) back to the local user's mobile phone. (G and H) The local user received the acknowledgment (G) and SMS (H).

Conclusion: The uMED is an inexpensive, versatile tool that links all of the most common electrochemical methods with the telecommunication technology most widely available across the globe.

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S.Tanveer Mehtab
17691A04K4, ECE-D

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The Art of Making Good Choices

The reason why I'm writing the article is to let other people know how important is that making/choosing an option can impact one's lives.

There are so many choices these days walk through any store, look at any magazine even e-mail offers a thousand of ads.

The dictionary meaning of choice is "*an act of choosing between two or more possibilities".*

HOW IS ONE TO "KNOW WHAT TO CHOOSE?"

Once upon a time, it was easy nowadays its time-consuming task because we need to analyze things, which means which option best fits for us.
Let me quote an example of my school days here: We wore uniforms to school, that didn't make choice any easier. You would think that with exactly the same clothes everyone would have exactly the same choices.
Ah!! I can just see people in cave days when they only had one skin to wear at the waist, which flowers should they twine into the hair?
So, there have always been choices, no getting around it. The problem comes when there are too many choices.

OVERWHELMED BY THE OPTIONS:

What it means to have too many choices also varies. Some people feel overwhelmed by picking between two things. Others can have an almost infinite-seeming variety and do well. It also depends on the analysis of options.
Eg:- If we wanted to buy a laptop we have thousands of options here. So, analysis begins here:
What's the purpose? Research on which one best serves for the purpose.
After research, you come into the conclusion which one to buy but it doesn't end there it should fit into the budget of yours. So, this means you need to have clarity first.

CONSEQUENCES OF MAKING THE WRONG DECISION:

Some people hate to choose between two options. They are afraid of the consequences of making the wrong decision. For them, the idea that they should pick something based on preferences pros and cons is just as frightening. People who have trouble making decisions fear mistakes. They hate being wrong.

THE CHOICE AS A COMMITMENT:

Another problem with the decision has to do with seeing the choice as things to be done, rather than as opportunities to explore. Making decisions sometimes means making a commitment to choose and sticking with it. Herewith I want to end this by saying *"Having an opportunity to find out something a make decisions fun".*

Kodaganti Laya Meghana
17691A0481
2nd year ECE - B

PLACEMENT UPDATES:

S.no	Roll Number	Name of Student	Placed in Company	Job Profile Title
1	15691A04D0	Priyanka Amaravathi	Mindtree	Software Trainee
2	15691A04E0	Gundlapalle Ramya	Mindtree	Software Trainee
3	15691A04N6	Lakshmi Praneeth Mullagiri	Mindtree	Software Trainee
4	15699A0407	BANDHA BABU	Mindtree	Software Trainee
5	15699A0426	Devarakonda Harshasree Sree	Mindtree	Software Trainee
6	15699A04A4	Mekala Supriya	Mindtree	Software Trainee
7	15691A0402	Syed Afroza Begum	infosys technologies	Software engineer
8	15691A0402	Syed Afroza Begum	Cognizant Technology Solutions	Software Trainee
9	15691A0404	Bellam Ahalya	Cognizant Technology Solutions	Software Trainee
10	15691A0410	Arshiya Shaik	HireCraft Software Pvt. Ltd	Technical Solution Engineers
11	15691A0413	T.Asmitha	HireCraft Software Pvt. Ltd	Technical Solution Engineers
12	15691A0413	T.Asmitha	infosys technologies	Software engineer
13	15691A0414	Ayesha Lababin	Cognizant Technology Solutions	Software Trainee
14	15691A0417	Balasai Reddy Yanamala	Cognizant Technology Solutions	Software Trainee
15	15691A0417	Balasai Reddy Yanamala	Wipro Ltd	SOFTWARE ENGINEER
16	15691A0417	Balasai Reddy Yanamala	HireCraft Software Pvt. Ltd	Technical Solution Engineers
17	15691A0422	BHASKAR REDDY KRISHNAMAREDDYPALLI	Hexaware Technologies	Software Engineer
18	15691A0423	A.Bhavana	Cognizant Technology Solutions	Software Trainee
19	15691A0426	CHANDANASREE GAJULA	Tata Consultancy Services	Software developer
20	15691A0426	CHANDANASREE GAJULA	Wipro Ltd	SOFTWARE ENGINEER
21	15691A0427	P Charan Kumar Reddy	infosys technologies	Software engineer
22	15691A0427	P Charan Kumar Reddy	Tata Consultancy Services	Software developer
23	15691A0431	Nama	HireCraft Software Pvt. Ltd	Technical Solution Engineers
24	15691A0431	Nama	Cognizant Technology Solutions	Software Trainee
25	15691A0432	DEVI CHENNAPPAGARI	Cognizant Technology Solutions	Software Trainee
26	15691A0435	Dilip Challagondla	KNOWLEDGE LENS	Big Data Software Engineer /Junior Data Scientist/Big Data Product Engineer
27	15691A0436	Divya Rupa P	NTT DATA	software engineer
28	15691A0436	Divya Rupa P	Tavant Technologies	UI Engineer
29	15691A0437	Divya Vutukuru	NTT DATA	software engineer
30	15691A0437	Divya Vutukuru	Cognizant Technology Solutions	Software Trainee
31	15691A0438	B.Divya Sree	Cognizant Technology Solutions	Software Trainee
32	15691A0438	B.Divya Sree	Fame Technologies	Web Developer/App Developer/ Marketing Analyst/Operation Analyst
33	15691A0439	Perampati Divya Sudha	Fame Technologies	Web Developer/App Developer/ Marketing Analyst/Operation Analyst
34	15691A0439	Perampati Divya Sudha	infosys technologies	Software engineer
35	15691A0440	Konduru Divya	Cognizant Technology Solutions	Software Trainee
36	15691A0446	Velpumadugu.Harathi	Wipro Ltd	SOFTWARE ENGINEER
37	15691A0454	V Kumar	Cognizant Technology Solutions	Software Trainee
38	15691A0457	Jahnavi Bandaru	infosys technologies	Software engineer
39	15691A0457	Jahnavi Bandaru	Ojas Innovative Technologies Pvt Ltd	Trainee Software Engineers
40	15691A0458	Jahnavi Yeddula	Ojas Innovative Technologies Pvt Ltd	Trainee Software Engineers
41	15691A0458	Jahnavi Yeddula	NTT DATA	software engineer
42	15691A0459	Jashwanth Chowdary P	GGK Technologies	Trainee Software Engineer
43	15691A0461	Durgaraj	Mu Sigma	Trainee Decision Scientist
44	15691A0462	Jhansi Thalapaneni	Cognizant Technology Solutions	Software Trainee
45	15691A0463	G.john Enock	Cognizant Technology Solutions	Software Trainee
46	15691A0464	Kadireddy Jyothsna	infosys technologies	Software engineer
47	15691A0464	Kadireddy Jyothsna	L & T Technologies	software developer
48	15691A0465	Karthik Bagepalli	Cognizant Technology Solutions	Software Trainee
49	15691A0467	Mullaguri Keerthana	Wipro Ltd	SOFTWARE ENGINEER
50	15691A0467	Mullaguri Keerthana	infosys technologies	Software engineer

S.no	Roll Number	Name of Student	Placed in Company	Job Profile Title
51	15691A0468	C.Keerthi	Fame Technologies	Web Developer/App Developer/ Marketing Analyst/Operation Analyst
52	15691A0472	K Kiran Sai	Tata Consultancy Services	Software developer
53	15691A0473	Udamala Kiran	Cognizant Technology Solutions	Software Trainee
54	15691A0474	Koguru Kowshil	Cognizant Technology Solutions	Software Trainee
55	15691A0476	Tatepalli Kumar	Accrete Globus Technology Pvt. Ltd.	Product Consultant
56	15691A0479	Balaraju Lakshmi Sathya Varma	Cognizant Technology Solutions	Software Trainee
57	15691A0480	Bayyakkagari Lathasree	L & T Technologies	software developer
58	15691A0481	Kuruba Lavanya	Wipro Ltd	SOFTWARE ENGINEER
59	15691A0482	Mallempati Lavanya	Wipro Ltd	SOFTWARE ENGINEER
60	15691A0482	Mallempati Lavanya	L & T Technologies	software developer
61	15691A0484	Narala Leeladhar Reddy	Wipro Ltd	SOFTWARE ENGINEER
62	15691A0485	C .Leelavathi	L & T Technologies	software developer
63	15691A0486	TALARI SWARAJ	Wipro Ltd	SOFTWARE ENGINEER
64	15691A0488	kamineni Lokesh	L & T Technologies	software developer
65	15691A0490	Madhu P	Ojas Innovative Technologies Pvt Ltd	Trainee Software Engineers
66	15691A0495	manisha reddy	Accrete Globus Technology Pvt. Ltd.	Product Consultant
67	15691A0496	Mallemputi Manusha	Tata Consultancy Services	Software developer
68	15691A0498	Dasari Mithin Kumar Reddy	infosys technologies	Software engineer
69	15691A0498	Dasari Mithin Kumar Reddy	Cognizant Technology Solutions	Software Trainee
70	15691A0499	Shaik Nihad	Tavant Technologies	UI Engineer
71	15691A04A1	N.Mohit	Cognizant Technology Solutions	Software Trainee
72	15691A04A1	N.Mohit	NTT DATA	software engineer
73	15691A04A3	A Murali	Ojas Innovative Technologies Pvt Ltd	Trainee Software Engineers
74	15691A04A6	Bugadi Naga Tanmayee	infosys technologies	Software engineer
75	15691A04A8	C.Nagasri	L & T Technologies	software developer
76	15691A04A9	Nagendra Pillakayala	Cognizant Technology Solutions	Software Trainee
77	15691A04B3	N Navya	Cognizant Technology Solutions	Software Trainee
78	15691A04B4	V Navyasree	Tata Consultancy Services	Software developer
79	15691A04B4	V Navyasree	infosys technologies	Software engineer
80	15691A04B5	T.Nikhileswar	KNOWLEDGE LENS	Big Data Software Engineer /Junior Data Scientist/Big Data Product Engineer
81	15691A04B6	Singasani Nisharani	KNOWLEDGE LENS	Big Data Software Engineer /Junior Data Scientist/Big Data Product Engineer
82	15691A04B7	Nithin Karanam	L & T Technologies	software developer
83	15691A04B9	Chandamuri Padmaja	Wipro Ltd	SOFTWARE ENGINEER
84	15691A04C0	S.Parimala	Tata Consultancy Services	Software developer
85	15691A04C2	L. Pavani	L & T Technologies	software developer
86	15691A04C6	Kamasani Prasanna	KNOWLEDGE LENS	Big Data Software Engineer /Junior Data Scientist/Big Data Product Engineer
87	15691A04D0	Priyanka Amaravathi	Ojas Innovative Technologies Pvt Ltd	Trainee Software Engineers
88	15691A04D4	Raghavendra Daggupati	Wipro Ltd	SOFTWARE ENGINEER
89	15691A04D7	Rajeev Goriga	Cognizant Technology Solutions	Software Trainee
90	15691A04D9	Ramprasad Chenna	Cognizant Technology Solutions	Software Trainee
91	15691A04E0	Gundlapalle Ramya	L & T Technologies	software developer
92	15691A04E1	Ranga Sai Mamilla	Fame Technologies	Web Developer/App Developer/ Marketing Analyst/Operation Analyst
93	15691A04E1	Ranga Sai Mamilla	Aliens Group	Business Associate (Civil engineer/ Procurement engineer/Sales executive)
94	15691A04E5	V Reddy Laharisha	Aliens Group	Business Associate (Civil engineer/ Procurement engineer/Sales executive)
95	15691A04E7	Shaik.Rizwana	Aliens Group	Business Associate (Civil engineer/ Procurement engineer/Sales executive)
96	15691A04F1	K.Rohith	Tata Consultancy Services	Software developer
97	15691A04F2	K.Roja	Cognizant Technology Solutions	Software Trainee
98	15691A04F3	K. Roja	Cognizant Technology Solutions	Software Trainee
99	15691A04F4	S Roohina	Wipro Ltd	SOFTWARE ENGINEER
100	15691A04F5	Shaik Roshantaj taj	Cognizant Technology Solutions	Software Trainee

S.no	Roll Number	Name of Student	Placed in Company	Job Profile Title
151	15699A0447	Madhuri Sangu	infosys technologies	Software engineer
152	15699A0456	Naveen Golla	Cognizant Technology Solutions	Software Trainee
153	15699A0459	Nikhitha Karanam	Cognizant Technology Solutions	Software Trainee
154	15699A0459	Nikhitha Karanam	infosys technologies	Software engineer
155	15699A0466	Bogineni Pranathi	Tata Consultancy Services	Software developer
156	15699A0469	Vendala pravalika	Cognizant Technology Solutions	Software Trainee
157	15699A0477	Pichili Kiran	Cognizant Technology Solutions	Software Trainee
158	15699A0479	K. Reddy Rekha	Cognizant Technology Solutions	Software Trainee
159	15699A0480	ChinnaChengannaGari RupaSree	Wipro Ltd	SOFTWARE ENGINEER
160	15699A0482	Kadala Sai Chandana	L & T Technologies	software developer
161	15699A0488	D Sai Santhosh	Cognizant Technology Solutions	Software Trainee
162	15699A0491	P.Sandhya	Cognizant Technology Solutions	Software Trainee
163	15699A0492	Shahawar Shaik	Wipro Ltd	SOFTWARE ENGINEER
164	15699A0494	Y.Siva Reddy	Cognizant Technology Solutions	Software Trainee
165	15699A0496	Paluru Sravani	Cognizant Technology Solutions	Software Trainee
166	15699A0497	Sravani V	Cognizant Technology Solutions	Software Trainee
167	15699A0498	Saphal Vecham	Fame Technologies	Web Developer/App Developer/ Marketing Analyst/Operation Analyst
168	15699A04A0	Chokkappa Sucharitha	L & T Technologies	software developer
169	15699A04A1	Sudheer R	Cognizant Technology Solutions	Software Trainee
170	15699A04A7	P.Thulasi Ram	Wipro Ltd	SOFTWARE ENGINEER
171	16695A0411	K. Dileep	Cognizant Technology Solutions	Software Trainee
172	16695A0419	M.V.Sai Sandeep	L & T Technologies	software developer
173	16695A0435	Gundluri Reddy	Cognizant Technology Solutions	Software Trainee
174	16695A0445	SATEESH PASALA	Cognizant Technology Solutions	Software Trainee
175	16695A0445	SATEESH PASALA	Cyient	Associate Professional
176	15699A0438	Bolligorla Kishore	Equitas Small Finance Bank ·	Business Development Executive
177	15691A0428	Lankipalli Chethana	Equitas Small Finance Bank ·	Business Development Executive
178	15691A04C8	Ds Prasanth Kumar	QSPIDERS	Trainee
179	15691A0428	Lankipalli Chethana	QSPIDERS	Trainee
180	15699A0493	Shashi Bhushan.M Muthyala	QSPIDERS	Trainee
181	15691A04E7	Shaik.Rizwana	QSPIDERS	Trainee
182	15699A04B0	VENKATESWARLU DABBARA	QSPIDERS	Trainee
183	15691A04K4	T.Thejasree	QSPIDERS	Trainee
184	15699A0438	Bolligorla Kishore	QSPIDERS	Trainee
185	15691A04G4	Dumala Priya	QSPIDERS	Trainee
186	15699A0449	Manjusri R	QSPIDERS	Trainee
187	16695A0407	B.Navyapavani	QSPIDERS	Trainee