



## CONFERENCE PROCEEDINGS

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Technology Research

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## CONFERENCE VENUE

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## **Preface:**

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## **KEYNOTE SPEAKER**



**Dr. Zeenath Reza Khan**

**Assistant Professor Faculty of Engineering & Information Sciences Fellow, Wollongong  
Academy of Tertiary Teaching Excellence, Sydney, Australia**

Dr. Zeenath Reza Khan is an Assistant Professor at the University of Wollongong in Dubai and has been teaching since 2001. She completed her Ph.D. with a scholarship from the University of Wollongong on E-cheating in Education which was nominated for the Emerald Outstanding Doctoral Thesis Award 2016. She chaired the International Conference on Academic Integrity in 2016. Nominated thrice for Research Award, she is the winner of UOWD Teaching Excellence, Turnitin Global Innovation Awards: Academic Integrity Category and recently Wollongong Vice Chancellor's Award for Outstanding Contribution to Teaching and Learning 2016. She is Fellow of Wollongong Academy of Tertiary Teaching Excellence. With more than 40 publications, media interviews, Zeenath is leading the campaign for Academic Integrity in UAE and beyond.



**Prof. Musa, Ibrahim  
Mohammed**  
ERCICSTR1802051

### **Health Risks Of Heavy Metals Via Consumption Of Herbs Collected Around Bompai And Jakara Sampling Areas**

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#### **Abstract**

The study investigated the concentrations of Co, Ni, Pb, Cd and Cr in five herbal plants collected in the vicinity of Bompai industrial area and along river Jakara, Kano State. The samples were collected and prepared using standard analytical procedures and analytical grade reagents were used for digestion. Agilent 240FS AA model of fast sequential Atomic absorption spectroscopy was used for the analysis of five heavy metal content of these samples. The result of the analysis showed that Cr ranged from  $2.96 \pm 0.84$  to  $15.39 \pm 0.84$ , Co ranges from  $1.73 \pm 0.24$  to  $9.54 \pm 0.22$ , Ni ranges from  $2.16 \pm 0.32$  to  $10.10 \pm 0.21$ , Cd ranges from  $0.09 \pm 0.01$  to  $1.050 \pm 0.03$ . and Pb ranges from  $5.81 \pm 0.43$  to  $28.3 \pm 0.43$ . At Bompai, the target hazard quotients (THQs) values of Cd, Cr, Co, and Ni for the investigated samples do not exceed one indicating that there is no health risk from consuming these herbs. But the THQ for Pb in Balsam apple (1.90) was above 1, Hazard Index (HI) value (1.99) was also higher than 1. THQ for Cd, Ni, Pb and Co ranged from 0.0064 to 0.595 at Jakara sampling areas. The THQs of Heavy Metals from consumption of herbs being less than 1.0 suggested that health risk was insignificant.

**Keywords:** herbs, metals, Bompai, Jakara




**Dr. Ioannis Karamitsos**  
ERCICSTR1802052

### **The Blockchain impact into Smart Cities**

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#### **Abstract**

Smart Cities initiatives will produce a large amount of data and information, collected through various sources. With the introduction of new disruptive technologies such as the Blockchain, and Internet of Things (IoT) we can accumulate, analyse and elaborate on all the data collected and obtain valuable insight. The combination of Blockchain and IoT is a research area that presents interesting challenges for the future of smart cities. These new challenges are related to the integration of business and technical streams into the smart city ecosystem. In this paper, we initially present an overview of the Blockchain and IoT technologies and show how they interact while converging. Several smart cities applications are analysed within the context of the IoT. Moreover, a future disruptive framework is proposed and research challenges are

	<p>identified. This study can serve as a guideline for industries or stakeholders who engage in the development of smart cities initiatives in the context of Blockchain. Many real-estate companies have developed innovative smart-city visions based on a portfolio of products and services for the real-estate market. Such visions were derived after several years of innovation and on-the-field experience both in mature and developing economies. Integrated facility management platforms, real-estate infrastructure convergence to IP, open data are only a few building blocks of a solution that delivers enormous benefits to the real-estate industry.</p> <p><b>Keywords:</b> Blockchain, Internet of Things, Smart cities</p>
 <p><b>Oulhadj Mohammed</b> ERCICSTR1802055</p>	<p><b>Comparative analysis of the measurement accuracy in energetic metering systems</b></p> <p><b>Oulhadj Mohammed</b> Department of hydrocarbons and renewable energy, Africain University, Adrar, Algeria</p> <p><b>Abstract</b> The metering operation of fluid is considered as an important topic in energetic field; this operation is followed by the dynamic measurement for getting a high accuracy with accordance of the International Standards. However, the choose of metering system depends on the type of the fluid and the required accuracy. This work consists of choosing the best metering system used in the energetic field. Therefore, we make the necessary simulations by using the operational industrial values and then making a comparison between the results of these simulations to be able for choosing the best accurate metering system. This study will be done in function of standard references that are certified by the international laboratories.</p>
<p><b>Nawel Zaatout</b> ERCICSTR1802056</p>	<p><b>In Vitro Effects Of Sub-Inhibitory Concentrations Of Antibiotics On Biofilm Forming Staphylococci Isolated From Sub-Clinical Bovine Mastitis Cases</b></p> <p><b>Nawel Zaatout</b> Department of Microbiology, University of Bejaia, Bejaia, Algeria</p> <p><b>Ayachi Ammar</b> University of Batna, Institute of Veterinary and Agricultural Sciences, Batna. Algeria</p> <p><b>Kristina Kadlec</b> Institute of Farm Animal Genetics, Friedrich-Loeffler-Institut, Germany</p> <p><b>Kecha Moulou</b> University of Bejaia, Faculty of Natural and Life Sciences, Department of Microbiology, Bejaia, Algeria</p> <p><b>Abstract</b> This study was designed to investigate the capacity of subinhibitory concentrations of penicillin, novobiocin, tetracyclin, tylosin and penicillin + novobiocin combination to interfere with the mechanism of biofilm formation of ten Staphylococci isolated from bovine mastitis cases. These strains were further characterized by genotyping by using spa typing and</p>

	<p><b>mecA</b> gene detection by PCR. Minimum inhibitory concentrations (MIC) were determined using the two-fold dilution method; synergy between penicillin and novobiocin was measured by Checkerboard method. The mean relative inhibitions of biofilm formation at <math>\frac{1}{2}</math> and <math>\frac{1}{4}</math> of the MIC were significantly different for penicillin and tetracyclin. Antibiotics used at sub-MIC levels seemed to interfere with bacterial biofilm virulence expression by decreasing biofilm formation in some isolates reaching over 80% of reduction, and inducing biofilm formation in other isolates depending on the strain, the type, and concentration of antibiotic used. In conclusion, this study demonstrated that penicillin, novobiocin, tetracyclin, tylosin and penicillin + novobiocin combination at sub-MIC can be beneficial for the behavior of staphylococci isolated from bovine mastitis cases. Such results could be relevant to determining the usefulness of an approach targeted at preventing an intramammary infection with biofilm-producing Staphylococci.</p> <p><b>Key words:</b> Antibiotics, Biofilm, Bovine mastitis, Staphylococci, Synergy</p>
 <p><b>Florence Ikechiamaka</b> ERCICSTR1802057</p>	<p><b>Design and Simulation Of Planer Inverted F Antenna (Pifa) For Effective Mobile Communication For National Security</b></p> <p><b>Florence Ikechiamaka</b> Department of Physics, Faculty of Science, Federal University Dutsinma, Katsina State. Nigeria</p> <p><b>Okpala C</b> Department of Physics, Federal University Dutsin - Ma, Katsina State, Nigeria</p> <p><b>Akinbolati A</b> Department of Physics, Federal University Dutsin - Ma, Katsina State, Nigeria</p> <p><b>Abstract</b></p> <p>The nation's increasing dependence on information system in every sector and the plethora of information presents a great opportunity for national security management in Nigeria. Mobile phones use has moved from luxury to necessity due to its indispensability with regards to information dissemination. Mobile communication support national security strategies: telecommunication and device – to – device communication. The simulated results of the Planer Inverted – F Antenna (PIFA) carried out with the use of High frequency structural simulator reveal that, at 1800MHz, PIFA has return loss of 8.9dB, Bandwidth of 49.0MHz, gain of 1.7dB and electric field strength of 0.1dB. On the other hand, PIFA at 2400MHz resonated at <math>S_{11} = -7.1dB</math> with bandwidth of 80.0MHz, gain of 1.68dB and electric field strength of 0.12dB. The PIFAs designed based on transmission line model has volume of <math>35mm \times 21mm \times 2mm</math> and <math>30mm \times 20mm \times 2mm</math> for 1800MHz and 2400MHz respectively. These designed low profile antennas are smaller than conventional PIFAs designed at the same frequencies. The proposed antennas could be employed for DCS1800 and Bluetooth 2400 mobile communication standards.</p> <p><b>Keywords:</b> National security, mobile communication, PIFA, electric field strength</p>
<p><b>Chitra Dhawale</b> ERCICSTR1802058</p>	<p><b>Improved Variational Approach to Enhancement of Marathi Printed Degraded Documents</b></p> <p><b>Chitra Dhawale</b></p>

	<p>P.G.Department of Computer Application, S.G.B. Amravati University, India</p> <p><b>Abstract</b> Optical Character Recognition (OCR) system aims to translate scanned text to a machine understandable text. To do so, numerous tactics exist for several scripts and so far for good quality documents. Conversely, only a delimited permutation of the same has been investigated for degraded printed Marathi documents. This work offers learning which aims to discover and fetch out a marginal and competent policy of pre-processing in treating OCR for degraded printed Marathi documents. An effective estimation of the offered substitute has been considered by exposing it to documents having bleed-through, border smear, smear inside, low illuminations, unclearness etc. The proposed model is robust with respect to noise, complex background and its results have been computed using MATLAB R2015</p>
<p><b>Dr Shagufta Saeed</b> ERCICSTR1802059</p>	<p><b>Utilization Of Fruit And Vegetable Peels For The Enhanced Production Of Alginic Acid</b></p> <p><b>Dr Shagufta Saeed</b> Institute of Biochemistry and Biotechnology, University of Veterinary and Animal Sciences, Lahore, Pakistan</p> <p><b>Rahat Naseer</b> Institute of Biochemistry and Biotechnology, University of Veterinary and Animal sciences, Lahore</p> <p><b>Muhammed Tayyab</b> Institute of Biochemistry and Biotechnology, University of Veterinary and Animal sciences, Lahore</p> <p><b>Sehrish Firyal</b> Institute of Biochemistry and Biotechnology, University of Veterinary and Animal sciences, Lahore</p> <p><b>Abstract</b> Alginic acid, an industrially important biopolymer is commercially extracted from farmed brown seaweeds. Owing to variation in composition of alginate, isolated from different species, there is rising interest in bacterial alginate. Pakistan meets the industrial demand of alginate by importing it from developed countries. The present study was designed to assess the potential of different fruit and vegetable peels like potato, carrot, apple, orange, banana and papaya peels for alginate production by <i>Azotobacter vinelandii</i> through submerged fermentation. Optimization of basal media composition and various physical parameters was also done. On fermentation of 6% (w/v) potato peels maximum alginate production was reported at 48 hours of incubation time with 8% (v/v) inoculum size at pH 7.0, 300C and agitation speed of 200 rpm. Addition of different optimum levels of ionic salts i.e. 1.5% CaCl<sub>2</sub> and 2% MgSO<sub>4</sub>. 7H<sub>2</sub>O gave significantly higher quantity of alginate whereas KH<sub>2</sub>PO<sub>4</sub> and NaCl reduced the yield of alginate. Among different nitrogen sources tested, 2% corn steep liquor showed significantly higher yield of alginate (6.48 g/L). Alginic acid produced was found to be 98% pure by HPLC method. The present exploration depicted that an important biopolymer can be efficiently produced utilizing cheap waste material to save the atmosphere from pollution and huge foreign exchange</p>



	<p>spend to import alginate. Key words: Alginic acid, fruit and vegetable peels, Azotobacter vinelandii, optimization, submerged fermentation</p>
<p>Osunkunle Abdulmageed ERCICSTR1802060</p>	<p>The Making of Federal Polytechnic, Bauchi as an Open Defecation Free Environment Using Improved Toilets</p> <p>Osunkunle Abdulmageed Department of Architectural Technology, Federal Polytechnic, Bauchi, Nigeria</p> <p>Shuaibu Nuru Mamman Department of Building Technology, Federal Polytechnic, Bauchi</p> <p>Ogwuche Henry Audu Department of Architectural Technology, Federal Polytechnic, Bauchi, Nigeria</p> <p>Kabiru Zakari Department of Architectural Technology, Federal Polytechnic, Bauchi, Nigeria</p> <p>Abstract In most African countries, especially some states in Nigeria have not actually migrated to the next, higher level in terms of hygiene as open defecation is still a norm. As a result of this, the Federal, State and Local governments are presently trying to achieve safe hygiene practices for a collective responsibility, sustainable waste management and benefits to the society. Bauchi is one of the states identified with open defecation free environment in Nigeria. The need for adequate and affordable toilet design, construction and management of such sanitary facilities are too much of a heavy burden to bear due to some circumstances beyond the funding of the management, which requires special interventions and supports. The provision of improved toilets in Bauchi are geared towards improved sanitation trend, certain innovative constructions, hygienic behaviours and attitudes, promotions, cutting-edge technologies, innovations, principles, laws and regulations among others. As a result of the above, the paper revisits as well as appraises the making of adequate and affordable toilets in Federal Polytechnic, Bauchi for positive implementation and benefits by showcasing various improved toilet options with an attempt to stop open defecation practice in Federal Polytechnic, Bauchi. It has been recommended that the management should strictly enforce the law that will promote open defecation free environment using improved toilets.</p> <p>Key words: Construction, design, Environment, implementation, toilet</p>
<p>Yaro Umar ERCICSTR1802061</p>	<p>Criterion Related Validity (Predictive) of Post Unified Tertiary Matriculation Examination on Students Academic Performance. A Case Study of Umaru Musa Yar'adua University</p> <p>Yaro Umar Department of Education, College of Science and Technology, Hassan Usman Katsina Polytechnic, Katsina, Nigeria</p> <p>Abstract This study is aimed at finding out the Predictive Validity of Post Unified Tertiary Matriculations Examinations (PUTME) on Students' Academic Performance of Umaru Musa Yar'adua University that was administered</p>

	<p>in 2011/2012 academic session. The designs employed for this study were ex post facto and co relational. The population for the study was 1256 comprising both (986 males and 269 females). Through cluster random sampling, 300 students were selected. One research hypothesis was formulated and tested at 0.05 level of significance. A research- designed pro forma was used for data collection. Both PUTME Scores and Students CGPA were collected using pro-forma. Data collected were analysed using Pearson product moment correlation coefficient. Research finding showed that there was strong positive and significant relationship between PUTME and Students' Academic Performance in their first year of Degree Programme(<math>R=0.6</math>). It was therefore, based on the finding recommended that admission should be strictly based on the performance in the Post UTME Screening/test.</p>
 <p><b>Shafiq Ur Rehman</b> ERCICSTR1802062</p>	<p><b>The Role Pakistan Power Electronics Supply Design Using Hardware and Software in the Field of Research and Technology</b></p> <p><b>Shafiq Ur Rehman</b> Telecommunication Engineering Department, Sir Syed University of Engineering &amp; Technology, Pakistan</p> <p><b>Irfan Ahmed Usmani</b> Sir Syed University of Engineering &amp; Technology, Karachi, Pakistan</p> <p><b>Abstract</b></p> <p>In this work, We would describe the main design of power control supply and also be designing parameters of the power supply in the modern electronic world. We would design the power supply live. The design parameters of the power supply in the world of electronics technology. We would emphasize the active and passive design of power supply. We would design the Pakistan Power Control supply on both quantitative and qualitative basis. In this work we would make the design of the Power Electronics Supply.</p> <p><b>Keywords:</b> Software based Power Supply Design, Hardware Based Power Supply Design, Active device Power Supply, Passive Device Power Supply.</p>
<p><b>Umar Umar</b> ERCICSTR1802063</p>	<p><b>Relationship between Socio-Economic Characteristics of Extension Agents and Information and Communication Technologies Utilization in Agricultural Extension Service Delivery by Extension Agents of Gombe State, Nigeria</b></p> <p><b>Umar Umar</b> Department of Agriculture, Hussaini Adamu Federal Polytechnic Kazaure, Jigawa State, Nigeria</p> <p><b>Abstract</b></p> <p>The study examined the Relationship between Socio-Economic Characteristics of Extension Agents and Information and Communication Technologies Utilization by Extension Agents of Gombe State, Nigeria. Specifically, the socio-economic characteristics of the respondents were described and the relationship between socio-economic characteristics of extension agents and ICT use in extension service delivery was determined. Data were collected from all the 72 extension agents who returned their completed questionnaires from the six local government areas out of the eleven local government areas of the state using</p>

	<p>structured questionnaire. Descriptive and inferential statistics were the analytical tools used. The results revealed that majority (73.61%) of the respondents were males and were between the age range of 50-59 years and majority (95.84%) had a minimum of OND certificate. The socio-economic factors influencing ICT use revealed that educational level (X2), income (X3), years of working experience (X5), membership of association (X7) and access to ICT facilities (X8) were positively related to ICT facilities use and statistically significant at conventional levels. The study recommended among others on the need to recruit more extension agents especially female extension agents so that they can take over from the ageing ones who have fewer years to retire. Government and non-governmental organizations should always organize training workshops on the use of ICT facilities in agricultural extension. Extension agents should be encouraged to join agricultural associations, as participation in these associations increases usage of ICT facilities for effective extension service delivery.</p> <p><b>Keywords: Relationship, Extension, ICT, Utilization, Nigeria</b></p>
<p><b>Binta Muhammad Ibrahim</b> <b>ERCICSTR1802064</b></p>	<p><b>Impact of Digital Technology in Textiles Industrial</b></p> <p><b>Binta Muhammad Ibrahim</b> <b>Department of Fashion Technology, College of Science and Technology,</b> <b>Hussaini Adamu Federal Polytechnic, Kazaure, Nigeria</b></p> <p><b>Abstract</b></p> <p>It has been observed that computer has contributed immensely in manufacturing of goods and services. Virtually every activity in the manufacturing or production of goods and services requires computation and information as such cannot be carried out perfectly by human. In spite of these, there has been indifferent attitude among some producers and organizations towards the role of digital technology in decision making and efficiency of productivity. This research into the impact of digital technology in textiles as well as any manufacturing industry is imperative and useful to give a clear picture on its relevance and how effective and efficient digital technology are in the textile industry. It also traced how digital technology is used in making colourful designs, which is more important to textile industries in making of attractive goods. Despite the limitations of digital technology, which the research work try to trace, it's role in ensuring effective administration in decision – making and accountability cannot be over emphasized. Therefore it is important for manufacturers to recognize the contribution of digital technology in textiles and manufacturing industries as a whole.</p> <p><b>KEY WORDS: Computer, Textile, Technology, Industrial</b></p>
<p><b>Durgesh Nadig</b> <b>ERCICSTR1802066</b></p>	<p><b>Design and Development of Fatigue Testing Machine For Cryogenic Temperatures</b></p> <p><b>Durgesh Nadig</b> <b>Centre for Cryogenic Technology, Indian Institute of Science, Bangalore,</b> <b>560012, India</b></p> <p><b>G.Sudarshan</b> <b>VSSC, ISRO, Thiruvananthapuram, INDIA</b></p> <p><b>Chandan Mahishi</b> <b>Centre for Cryogenic Technology, Indian Institute of Science, Bangalore,</b> <b>560012, India</b></p>

	<p style="text-align: center;"><b>G.J.Bharath</b> Centre for Cryogenic Technology, Indian Institute of Science, Bangalore, 560012, India</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Prior knowledge of fatigue strength properties of materials is very crucial in designing and developing a mechanical system failing which premature collapse of the entire system can take place. Reliable data of these properties are not available at cryogenic temperatures. Room temperature data cannot be extrapolated down to cryogenic temperature zone. With this background, a rotating beam fatigue testing machine suitable for both room and cryogenic temperatures has been designed and developed to determine fatigue properties of various materials commonly used for cryogenic temperature applications. The tests are conducted within an insulated cryogenic chamber. Desired cryogenic temperatures down to 77K are maintained by circulation of pressurised liquid nitrogen with the help a solenoid valve which is activated by a PID controller. Tests are conducted on selected grades of steels (SS304), aluminium (2024 and 7075) and titanium alloys. Test results are studied and compared with room temperature properties and analysed.</p> <p><b>Keywords:</b> Cryogenics, Liquid nitrogen, Fatigue strength, Cantilever and Cryogenic chamber</p>
 <p>Musa Ahmed Abubakar ERCICSTR1802068</p>	<p style="text-align: center;"><b>Standardization and antibacterial activity of persicaria minor huds against some bacterial pathogens</b></p> <p style="text-align: center;"><b>Musa Ahmed Abubakar</b> Department of Science Laboratory Technology, Kano State Polytechnic, Kano, Nigeria</p> <p style="text-align: center;"><b>Razauden M. Zulkifli</b> Department of Health Sciences, Faculty of Biosciences and Medical Engineering, Universiti Teknologi Malaysia (UTM), 81310 UTM, Johor Bahru, Malaysia</p> <p style="text-align: center;"><b>Musa Hassan Muhammad</b> Department of Biological Sciences, Federal University Dutse, Gigawa State, Nigeria</p> <p style="text-align: center;"><b>Abstract</b></p> <p>A significant number of herbs have been utilized as dietary and phytomedicinal sources in enhancing our health. Persicaria minor (Huds.) Opiz known as Small water-pepper and well recognized locally in Malaysia as “daun kesum” is an edible vegetable with nutritional and medicinal benefits utilized generally by South-east Asians. The present study was conducted to evaluate the antibacterial activity of aqueous-ethanolic and water extracts of P. minor leaves. The leaves of the plant undergone extraction based on Malaysian Standard Guideline which is 30% aqueous-ethanol and absolute water as normally used in traditional medicine to produce the respective extract concentrates. The plant was identified and authenticated by taxonomist from Forest Research Institute of Malaysia (FRIM). Both extracts were standardized by evaluating the total protein and polysaccharide contents in which aqueous-ethanolic extract was found to possess high contents of proteins (1713.67 µg/mL) while contents of polysaccharides were high in absolute water extract (17.6 µg/mL). These measurements were used as a standard for different batch extract. The extracts were then tested against four standard strains</p>

	<p>of bacteria which are Enterococcus faecalis ATCC 29212, Escherichia coli ATCC 11229, Staphylococcus aureus ATCC 6538 and Pseudomonas aeruginosa ATCC 15442 at different concentrations using disc-diffusion technique with penicillin being used as positive control and dimethylsulfoxide a carrier as negative control. Both extracts showed antibacterial activity with minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) values in the range of 50 to 100 mg/mL against S. aureus, E. faecalis, and E. coli, respectively with aqueous-ethanolic extract being more potent. However, none of the extracts were active against P. aeruginosa. Therefore, the results obtained in this research have shown the nutritional values and high potential of P. minor leaves to be used as natural antibacterial agent for the elimination of various bacterial diseases and infections.</p> <p><b>Keywords:</b> Antibacterial Activity, Aqueous-ethanolic Extract, Persicaria minor, Protein, Polysaccharide</p>
<p><b>Hardeep Singh</b> ERCICSTR1802069</p>	<p><b>Flexible PDMS-Based CPW-FED Monopole Antenna for 60 Ghz ISM Applications</b></p> <p><b>Hardeep Singh</b> Department of Electronics and Communication Engineering, University College of Engineering, Punjabi University, Patiala, India</p> <p><b>Abstract</b></p> <p>This study investigates a microstrip slotted antenna designed with Polydimethylsiloxane (PDMS). This designed antenna's patch consists of one rectangular shape slot, hence minimize return losses. This antenna is operating on single frequency band. The coplanar Feed line is used in this antenna. The antenna has 2.64 dB gain when it operates on 60 GHz. The return losses are lower than -17 dB at 60 GHz. Also, the return losses remain below -15 dB for the bandwidth of 1 GHz. The antenna model is simulated on Ansoft HFSS 13 software. Since the realm of flexible microstrip antenna engineering analysis remains in its infancy, this area has several potentialities for future work. Within the more study, this antenna can be changed for multiband frequency operations. The come losses are minimize by use of slots. The antenna's gain and bandwidth can also be improved and the size of antenna rather be reduced.</p> <p><b>Keywords -</b> Slotted micro strip antenna, PDMS, substrate, Flexible Antenna</p>
<p><b>Aminu Aliyu Ibrahim</b> ERCICSTR1802070</p>	<p><b>Issues with science and technology education in Nigeria and attainment of national development</b></p> <p><b>Aminu Aliyu Ibrahim</b> Biology Department, School of Sciences, Kogi State College of Education, Ankpa, Nigeria</p> <p><b>Abstract</b></p> <p>This paper emphasises the role of science and technology education in the development of a nation. It presented the concept of science and technology and their relationships with science and technology education. It specific goals as enshrined in the national policy on science and technology which were facilitation of knowledge and acquisition in STE for national development and promotion of activities for effective STE culture among Nigerians. Equally highlighted were some challenges</p>

	<p>identified with STE such as outdated and irrelevant curricula and lack of qualified teachers in schools. The paper observed the need to evolve ways to straightening the nation STE in order to achieve the laudable goals of national development. It is therefore recommended that the reformation of schools, teacher training institutions, university or their curricula be ensured as an integral part of economic transformation blue print in order to make Nigeria emerge as one of the top 20 economic nations in the world.</p>
<p><b>Dr. Jyotismita Talukdar</b> ERCICSTR1802072</p>	<p><b>Analysis Of Cardiovascular Diseases Using Artificial Neural Network</b></p> <p><b>Dr. Jyotismita Talukdar</b> University of Petroleum and Energy studies, Dehradun, India</p> <p><b>Abstract</b></p> <p>In this paper, a study has been made on the possibility and accuracy of early prediction of several Heart Disease using Artificial Neural Network. (ANN). The study has been made in both noise free environment and noisy environment. The data collected for this analysis are from five Hospitals. Around 1500 heart patient's data has been collected and studied. The data is analysed and the results have been compared with the Doctor's diagnosis. It is found that, in noise free environment, the accuracy varies from 74% to 92%.and in noisy environment (2dB), the results of accuracy vary from 62% to 82%. In the present study, four basic attributes considered are Blood Pressure (BP), Fasting Blood Sugar (FBS), Thalach (THAL) and Cholesterol (CHOL.).It has been found that highest accuracy(93%), has been achieved in case of PPI( Post-Permanent-Pacemaker Implementation ), around 79% in case of CAD(Coronary Artery disease),87% in DCM(Dilated Cardiomyopathy), 89% in case of RHD&amp;MS(Rheumatic heart disease with Mitral Stenosis), 75 % in case of RBBB +LAFB (Right Bundle Branch Block + Left Anterior Fascicular Block),72% for CHB(Complete Heart Block) etc. The lowest accuracy has been obtained in case of ICMP(Ischemic Cardiomyopathy),about 38% and AF( Atrial Fibrillation) , about 60 to 62%.</p> <p><b>Keyword:</b> Coronary Heart Disease, Cardiovascular Disease, Thalach, Cholesterol, (Sick Sinus Syndrome (SSS), Chronic Stable Angina (CSA).</p>
<p><b>Jyotismita Talukdar</b> ERCICSTR1803094</p>	<p><b>Analysis of Cardiovascular Diseases Using Artificial Neural Network</b></p> <p><b>Jyotismita Talukdar</b> Computer Science, University of Petroleum and Energy Studies, Dehradun</p> <p><b>Abstract</b></p> <p>In this paper, a study has been made on the possibility and accuracy of early prediction of several Heart Disease using Artificial Neural Network. (ANN). The study has been made in both noise free environment and noisy environment. The data collected for this analysis are from five Hospitals. Around 1500 heart patient's data has been collected and studied. The data is analysed and the results have been compared with the Doctor's diagnosis. It is found that, in noise free environment, the accuracy varies from 74% to 92%.and in noisy environment (2dB), the results of accuracy vary from 62% to 82%. In the present study, four basic attributes considered are Blood Pressure (BP), Fasting Blood Sugar (FBS), Thalach (THAL) and Cholesterol (CHOL.).It has been found that highest accuracy(93%), has been achieved in case of PPI( Post-Permanent-Pacemaker Implementation ), around 79% in case of CAD(Coronary Artery disease),87% in DCM(Dilated Cardiomyopathy), 89% in case of</p>

	<p>RHD&amp;MS(Rheumatic heart disease with Mitral Stenosis), 75 % in case of RBBB +LAFB (Right Bundle Branch Block + Left Anterior Fascicular Block),72% for CHB(Complete Heart Block) etc. The lowest accuracy has been obtained in case of ICMP(Ischemic Cardiomyopathy),about 38% and AF( Atrial Fibrillation) , about 60 to 62%.</p> <p>Keyword: Coronary Heart Disease, Cardiovascular Disease, Thalach, Cholesterol, (Sick Sinus Syndrome (SSS), Chronic Stable Angina (CSA)</p>
<p>Shorouq Ahmed ERCICSTR1802067</p>	<p>Characterization, Synthesis, and Application of ZnO/TiO<sub>2</sub> Nanocomposite for Photocatalysis of a Herbicide (Bentazon)</p> <p>Shorouq Ahmed Energy &amp; Building research center (EBRC) / Nano Technology and Advanced Material program (NAM)/ at Kuwait Institute for Scientific Research KISR, Kuwait</p> <p>Abstract</p> <p>One of the most important scientific research activities in both of energy and environmental sectors, is synthesizing of composites such as nanocatalyst powders of zinc oxide and titanium oxide. Due to their optical, electric properties,low cost,stability, nontoxicity, and ease of availability, they have been proven to be promising photocatalysts. Owing to the extension of light absorption range and effective charge transfer from ZnO to TiO<sub>2</sub> their composite has a superior photocatalytic activity. The purpose of this investigation is to study the applicability of ZnO–TiO<sub>2</sub> composite as a photocatalyst for degradation of Bentazon in polluted water. Effects of many various parameters will be studied, such as catalyst dosage, pH, initial Bentazon concentration, purging of oxygen gas, hydrogen peroxide concentration and total organic compounds on the removal efficiency of Bentazon.The greatest removal of Bentazon is at neutral pH due to photo-corrosion of ZnO composite in acidic and basic conditions. While it is decreased in the presence of organic compounds. Removal efficiency of Bentazon by UV/ZnO/TiO<sub>2</sub> process is greater than that by UV/TiO<sub>2</sub> process, UV/ZnO, and UV alone.</p>

## LISTENERS

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  - ICSTR Singapore – International Conference on Science & Technology Research, 16-17 November, 2018
  - ICSTR Jakarta – International Conference on Science & Technology Research, 23-24 November, 2018
  - ICSTR Mauritius – International Conference on Science & Technology Research, 17-18 December 2018
  - ICSTR Bangkok – International Conference on Science & Technology Research, 21-22 December, 2018
  - 2nd ICSTR Dubai – International Conference on Science & Technology Research, 26-27 December 2018
  - ICSTR Bali – International Conference on Science & Technology Research, 29-30 December 2018
  - 2nd ICSTR Bangkok – International Conference on Science & Technology Research, 07-08 February 2019
  - 3rd ICSTR Dubai – International Conference on Science & Technology Research, 26-27 February 2019
  - 2nd ICSTR Singapore – International Conference on Science & Technology Research, 15-16 March 2019