



## **LIST OF APPLICANTS**

**3rd ICSTR Singapore – International Conference on Science &  
Technology Research, 28-29 June 2019**

28-29 June 2019

## **CONFERENCE VENUE**

**The National University of Singapore Society (NUSS) The Graduate Club, Suntec  
City Guild House, 3 Temasek Boulevard (Tower 5), #02- 401/402 Suntec City  
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**Preface:**

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## PRESENTERS

<p><b>Daniel Joseph Benedict Ngamelubun</b> ERCICSTR1910051</p>	<p style="text-align: center;"><b>Effectiveness of Debt Swaps as an Alternative for Foreign Debt Management</b></p> <p style="text-align: center;"><b>Daniel Joseph Benedict Ngamelubun</b> Politeknik Statistika STIS, Jakarta, Indonesia</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Indonesia is caught in a state of debt traps and a middle-income country trap. With the legacy of past debt and added to the development that is still left behind, forcing the government to finance fiscal expansiveness by adding debt. Debt is not wrong, but is said to be wrong if utilization is not maximized. With debt management including debt swap and debt repayment delay, the government can maximize development through the debt. This study aims to compare the effectiveness of debt exchanges and postpone debt repayment, and if debt management is not done with the help of IRF and FEDV analysis on VAR. By using variable debt, fiscal deficit, GDP, CPI, TPT, net exports, exchange rate and debt repayment and development expenditure as a proxy makes debt management simulations, the results obtained show that debt management is better used than not using debt management with debt swaps as a suggested management to support macroeconomic stability and fiscal sustainability. With the conclusions and suggestions offered by the researcher that is to seek debt exchange as debt management, the long-term risk of debt trap is decreasing and increasingly supporting macroeconomic stability and fiscal sustainability.</p> <p><b>Keywords:</b> Debt Swaps, Moratorium, Debt Management, Irf and Fedv, Var <b>JEL Classification:</b> E00, H63</p>
 <p><b>Devendra K Sahu</b> ERCICSTR1910052</p>	<p style="text-align: center;"><b>Thermally stimulated depolarisation studies of Methyl Acrylic Acid (MAA) doped Ethyl Cellulose (EC)</b></p> <p style="text-align: center;"><b>Devendra K Sahu</b> Department of Physics, R.S. Government PG College, Lalitpur, U.P., India</p> <p style="text-align: center;"><b>Saumya Giri</b> Department of Physics, R.S. Government PG College, Lalitpur, U.P., India</p> <p style="text-align: center;"><b>Vikram S Yadav</b> Department of Applied Science &amp; Humanities, Bundelkhand Institute of Engineering &amp; Technology, Jhansi, U.P., India</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Thermally stimulated depolarisation current (TSDC) of polarised samples of methyl acrylic acid (MAA) doped ethyl cellulose (EC) films of about 25 µm thickness has been recorded as a function of temperature, electric field, heating rates and storage times. Two current maxima in positive direction and found around 60 and 110°C for doped sample with ethyl cellulose. SEM, FTIR &amp; NMR spectra of doped EC are represented the different phenomena of TSDC. Thermal sampling technique showed that the relaxation is distributed. Differentia thermal analysis gave a second-order transition at about 345K because of good correlation between both thermal techniques it is concluded that the TSD peak is associated with glass transition of the polymer, and therefore it involves the motion of large parts of the polymer chains. TSDC spectra of EC thermoelectret formed under the appropriate polarizing conditions have two peaks which are to be attributed to the deorientation of strongly attached ethyle groups in the side chains and space charge polarization, whereas on mixing Acrylic Acid (MAA) and ethyle cellulose has been observed which might be due to contribution of included and injected charges. Increase in current in samples seems to be due to formation of charge transfer complexes creation of new trapping levels. Pronounced effects of electrode variation on TSD currents also observed.</p>
<p><b>Yusuf M. Abdullahi</b> ERCICSTR1910053</p>	<p style="text-align: center;"><b>Impact of Distributed Generation on Zamfara 11KV Radial Network</b></p> <p style="text-align: center;"><b>Yusuf M. Abdullahi</b> College of Engineering, Umaru Ali Shinkafi Polytechnic Sokoto, Sokoto, Nigeria</p>



	<p style="text-align: center;"><b>Abstract</b></p> <p>This paper presents the potential impact of distributed generation (DG) on Zamfara 11kV radial network. Two DGs based on wind and fuel cell systems were used for the simulation to test the response and stability of the network. A bus with DGs and Static Var Compensator (SVC) was studied in comparison with a bus having no DG. For the system without DG, simulation results obtained revealed that the voltage decreases with increasing load. The minimum and maximum loads at which the system became unstable were 0.025MW and 2.5MW respectively. For the system with DGs but no SVC incorporated, the corresponding minimum and maximum loads at which system was unstable were 0.01MW and 1.2MW. With SVC connected the system attained stability at 0.98pu within 20s. Incorporation of DGs and SVC on the network resulted in an improved voltage response and the network stabilized faster.</p> <p><b>Keywords:</b> Static Var Compensator, Distributed Generation, Voltage Response, Radial network, Stability</p>
<p>Usaini Aliyu ERCICSTR1910054</p>	<p style="text-align: center;"><b>Use of Digital Technology to Develop Nigerian Traditional Textiles to make them Modern for the Contemporary World</b></p> <p style="text-align: center;"><b>Usaini Aliyu</b> Department of Fashion Design and Clothing Technology, Hussaini Adamu Federal Polytechnic Kazaure, Hussaini Adamu Federal Polytechnic Kazaure, Jigawa State, Nigeria</p> <p style="text-align: center;"><b>Abstract</b></p> <p>My Research paper is to investigation on use of Digital Technology to Develop Nigerian Traditional Textiles to make them Modern for the Contemporary World. My research work was able to create new ideas or designs of Nigerian textile influenced by the Nigerian traditional motifs and symbols on fabrics, the traditional method of making Nigeria textiles involves the use of several materials, some of which are bought from the market or made. The processes involved in the making of traditional textiles can also be labour intensive and takes much of time. There is also an issue of re-design or modification of design that is not easy using the traditional methods. Therefore, there is a need to develop the processes of traditional textiles designs by employing digital technologies so as to bring out the textiles designs. New technologies such as design software can be used to produce these textiles designs or patterns from images of landscapes and traditional motif printed on a fabric.</p> <p><b>Keyword-</b> Technology, Textile, Traditional Motif, Design</p>
<p>Sivaprakash Baskaran ERCICSTR1910058</p>	<p style="text-align: center;"><b>Prediction of Stable Operating Conditions in a Chemostat for Competitive Type Interaction between Two Microorganisms with Monod and Andrew's Growth Models</b></p> <p style="text-align: center;"><b>B. Sivaprakash</b> Assistant Professor, Department of Chemical Engineering, Annamalai University, Annamalainagar, Chidambaram, India</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Microbial competition plays an important role in natural eco systems as well as industrial processes that employ mixed cultures. A special type of competition is the pure and simple competition in which there is only one nutrient whose availability affects the growth rates of the interacting populations. In the biochemical operations employing mixed culture systems, may it be in batch or continuous mode the coexistence of all the interacting (or competing) species depends not only on their individual growth characteristics but also on the ability of them to utilize the available nutrients. Such a kind of system can be attained in the laboratory in a chemostat that contains the microbial populations and fed with the medium containing the limiting nutrient for the growth of the populations. In such a case coexistence is predicted theoretically for discrete values of the chemostat dilution rate only when the curves of the specific growth rate as a function of limiting nutrient concentration cross. The dilution rate must have exactly the value at which the specific growth rates of the population in the chemostat are equal. With the above facts in background the present research intends to model the competitive interaction between two microbial species and obtain stable operating conditions for coexistence. The modeling work is done for Monod and Andrew's models using normalization technique and numerical integration and the simulated results are presented.</p> <p><b>Keywords:</b> Chemostat, Competition, Monod, Andrew, Dilution Rate</p>

<p><b>Mila Tria Nita</b> ERCICSTR1910059</p>	<p align="center"><b>Anticancer Activity and Selectivity Test of Guava Leaf n-Hexane Fraction (<i>Psidium guajava</i> L.) Against T47D Breast Cancer Cells</b></p> <p align="center"><b>Mila Tria Nita</b> Department of Chemistry, Islamic University of Indonesia, Sleman, Yogyakarta</p> <p align="center"><b>Nurchahyo Iman Prakoso</b></p> <p align="center"><b>Abstract</b></p> <p>An anticancer activity and selectivity study of n-hexane fraction from guava leaves (<i>Psidium guajava</i> L.) in vitro on T47D cells was carried out. The method used is the MTT method or the colorimetric method. MTT method is relatively fast, sensitive and accurate. The concentration of the test solution used is 25; 12.5; 6,25 and 3,125 µg / mL. Then to find out the compound content in the fraction, an analysis using LC-MS/MS was carried out. In this study the IC50 value of n-hexane fraction was 6.95 µg / mL and the selectivity value was 38.4. The results of this study indicate that the n-hexane fraction has activity and selectivity as an anticancer and the largest active compound in the n-hexane fraction is ellagitanins, 3-Sinapoylquinic acid and gallic acid.</p> <p><b>Keywords:</b> <i>Psidium guajava</i> L. leaves, n-hexane fraction, ellagitanins, T47D cells.</p>
<p><b>Ohagwu Onyekachi Marcellinus</b> ERCICSTR1910060</p>	<p align="center"><b>Technical Training: A Pathway to Youth Empowerment</b></p> <p align="center"><b>Ohagwu Onyekachi Marcellinus</b> PhD student, University of Malaysia Sarawak, Malaysia</p> <p align="center"><b>Abstract</b></p> <p>This paper shed light on technical training (TVET) as a pathway to youth empowerment. It is noted that TVET increases youth empowerment opportunities and social economic development. TVET is a tool for positive change with various potentials for skill development, capacity building, wealth creation and youth empowerment.</p> <p><b>Keywords:</b> Youth empowerment, Technical training, TVET</p>
 <p><b>Prime Gilbert T. Rieta</b> ERCICSTR1910062</p>	<p align="center"><b>Rowth, Blood Lipid Profile and Economics of Broilers Fed with Azolla under Extensive and Intensive Production Systems</b></p> <p align="center"><b>Prime Gilbert T. Rieta</b> Department of Agriculture and Allied Courses, Department of Business and Management, Mindoro State College of Agriculture and Technology, Alcate, Victoria, Oriental Mindoro</p> <p align="center"><b>Abstract</b></p> <p>A study was conducted to determine the growth, blood lipid profile and economics of broilers fed with different levels azolla under extensive and intensive production systems as influenced by different production system. All data was analyzed using ANOVA following 2 X 4 factorial of the Completely Randomized Design while significant differences between treatment means was further analyzed using Scheffe's Test of the SAS Software. Results revealed that the production system significantly affects (P&lt;0.01) the growth the growth, blood lipid profile and economics of broilers. In addition, feeding different levels of azolla also affects the broilers regardless of production system. Broilers fed with 50% azolla and 50% commercial feeds showed significant results in terms of growth, blood lipid profile and economics. Results also showed that broilers that are raised under extensive production system or free range setting had better results in terms of growth, blood lipid profile and economics than broilers raised under intensive production system.</p> <p><b>Keywords:</b> Azolla, Blood Lipid Profile, Broilers, Intensive Production System, Extensive Production System</p>
<p><b>Anas Shehu</b> ERCICSTR1910063</p>	<p align="center"><b>Characterisation of Neutron detectors based on 3He</b></p> <p align="center"><b>Anas Shehu</b> Physics, Sokoto State University, Sokoto, Nigeria</p> <p align="center"><b>Abstract</b></p> <p>The purpose of this project is to study the characteristics of 3He based neutron detectors. An AmBe</p>



	<p>neutron generator in a water moderator was used to produce thermal neutrons. The detectors characterization is observed by studying the pulse height resolution, detection efficiency, epithermal neutron response, gamma-ray sensitivity and effect of orientation. The optimum operating conditions of these detectors were investigated by varying the high voltage and shaping time. Pulse-height resolution (%) and intrinsic efficiency (%) of all detectors were found after setting the optimum operation condition of each detector. The best output spectrum is found the detector no. 6 which has 7.812452335% and 4.829427283% for the pulse-height resolution and the intrinsic efficiency respectively. The experiment shows that a gamma exposure rate of <math>^{60}\text{Co}</math> which is lower than 4.78 mR/h does not affect the ability to discriminate gamma rays and neutrons of <math>^3\text{He}</math> based neutron detector. Finally, the intrinsic efficiency (%) of two different source-detector orientations was investigated.</p>
<p>Silakhuddin Ahmad Rusydi ERCICSTR1910064</p>	<p>The Status of Decy-13 Cyclotron Development</p> <p>Silakhuddin Ahmad Rusydi Center for Accelerator Science and Technology, National Nuclear Energy Agency of Indonesia, Yogyakarta, Indonesia</p> <p><b>ABSTRACT</b> Cyclotron which is a type of cyclic accelerator accelerates charged particles which are then bombarded at a target so that a nuclear reaction occurs. One of its uses is to produce radioisotopes for medical purposes. Currently a cyclotron for that purpose is being developed in National Nuclear Energy Agency of Indonesia, and the cyclotron is named DECY-13 Cyclotron. The word of DECY refers for Design of Experimental Cyclotron in Yogyakarta and the number 13 refers to the proton energy to be achieved in this cyclotron of 13 MeV. The design and construction activities since 2015 have been carried out by the process of making components and installing cyclotron systems. Until now, up to 80% of the process has been completed. These processes are carried out by researchers and institutions of Indonesia.</p>
<p>Alyaa Alqarni ERCICSTR1910065</p>	<p>Optical Solitons for Schrödinger-Hirota Equation by Riccati Equation Approach</p> <p>Alyaa Alqarni Mathematics, University of Bisha, Bisha, Saudi Arabia</p> <p><b>Abstract</b> Optical soliton solutions are retrieved for Schrödinger-Hirota Equation by employing Riccati equation approach. The soliton solutions that are presented are generalized versions of solutions that have been reported in the past. The constraint conditions guarantee the existence of such solitons.</p>
 <p>Md Aynul Hoque ERCICSTR1910066</p>	<p>Technology Adoption Models: Its Past and future in Clothing Industry</p> <p>Md Aynul Hoque Asia Europe Institute, University of Malaya, Malaysia</p> <p><b>Abstract</b> Constant change in technological innovations and progress related to apparel industry has triggered most of the clothing industry players to upgrade their machineries and systems to remain competitive in the fast changing buyer-driven industry. This paper reviews the applications of technology adoption theories such as Technology Acceptance Model (TAM), TAM2, TAM3, Diffusion of Innovation Theory (DOI), UTAUT, Technology-Organization-Environment (TOE) model in different industries. We studied over 50 articles to identify the applicability of certain models on specific technology adoption. Except DOI and TOE, all other theories are related to individual behavior on adopting Information System (IS). Only DOI and TOE deal with organization technology adoption. Findings show that TOE predicts substantially to adopt technologies in organizations. However, the theory may harvest benefits by adding and modifying some variables for any specific industry. Theoretically motivated additions to the existing construct are important future direction for research in TOE specifically to clothing industry context.</p>
<p>Alonzo Rimando ERCICSTR1910067</p>	<p>Interplay Between Arts and Waste Management: A Phenomenological Study</p>

	<p style="text-align: center;"><b>Alonzo Rimando</b> Lorma Basic Education Schools, La Union, Philippines</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Many economically developing countries produced more waste for as a country develops, the level of consumption also increases which causes the diminution of proper waste control because of the continuous production of wastes. Waste management liabilities stated that waste management practices, knowledge and awareness differs by sex, class, and age of the students. In general, the cooperation of communities and government is really important to minimize the effects of poor waste management of our community which encouraged the government implementing rules which creates creating necessary institutional mechanisms and incentives, declaring certain acts prohibited and providing penalties and appropriating funds. Our main research problem is; What are the challenges in the implementation of proper waste management. This research is a phenomenological research. Our participants are the artists of the Ililikha Artist village. Baguio experienced waste management problems because some people did not cooperate with the laws because of use of technology and their level of participation. People can contribute in creating a sustainable environment by creating advocacies that can help minimize waste or by understanding the concept of upcycling. The artists of the said village recycled waste to create something more beautiful that could lessen wastes. Our research could serve as a basis for the future researches so that they would not have much trouble in understanding waste management. It could also give the future researchers a head start on what to do and serve as a convenient guide. It could give them a clearer comprehension of Waste Management.</p> <p><b>Keywords: Waste; Education; Liability; Upcycling; Utilization</b></p>
 <p><b>Shajina Anand</b> ERCICSTR1910068</p>	<p style="text-align: center;"><b>AECC: An Enhanced Public Key Cryptosystem for User Defined Messages</b></p> <p style="text-align: center;"><b>Shajina Anand</b> Department of Computer Science, The College of New Jersey, USA</p> <p style="text-align: center;"><b>Aishwarya Ganapathisubramaniyan</b> Department of Computer Technology, Anna University, India</p> <p style="text-align: center;"><b>Gunasekaran Raja</b> Department of Computer Technology, Anna University, India</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Due to enormous growth of devices and its interconnected communication, there are lot of possibilities for attacks and vulnerabilities in the network. From recent studies, we come to know about various security related techniques and their usage. A lot of cryptographic algorithms are used efficiently and effectively in plenty of applications. Thus, it is notable to classify the attacks as two types Active and Passive Attack. Unauthorized access to the information implies passive attack. For example, in the communication channel doing operations like intercepting and eavesdropping are considered as passive attack. If the attacker tries to access the information and modify the information in an unauthorized manner, then it is considered as active attack. Man in the Middle attack is the best example of active attack. Here the attacker sends its public key as the hosts public and tries to hack the message. To overcome these issues, we proposed an Advanced Elliptical Curve Cryptographic (AECC) Algorithm which uses a code bit with a random function in both the sender and receiver side for encoding and decoding functions. This code bit is used to identify whether the public key belongs to attacker or the sender. By identifying the sender, the receiver can communicate with it without any restrictions. The results analysis section shows that our proposed AECC algorithm enhances security for user defined input messages like text, image, video and also for binary data.</p> <p><b>Keywords: Public Key, Data Security, Message Authentication, MITM (Man-In-The-Middle) Attack, AECC (Advanced Elliptical Curve Cryptographic) Algorithm</b></p>
<p><b>Yifan Xing</b> ERCICSTR1910069</p>	<p style="text-align: center;"><b>Controlling the von Neumann Entropy of Quantum Systems</b></p> <p style="text-align: center;"><b>Yifan Xing</b> Shenzhen Quantum Wisdom Culture Development Company, Shenzhen University, Shenzhen, China Centre for Quantum Technologies, National University of Singapore, Singapore</p>



	<p style="text-align: center;"><b>Abstract</b></p> <p>This paper provides the accurate tracking control of the von-Neumann entropy of quantum systems. The closed form of the accurate time derivative of the entropy is presented. Based on this, controller design methods for both time-dependent and constant decay rates are provided, which can directly drive the entropy to track a desired trajectory. Simulations are done on two-level quantum systems, and the solution of the singularity problem is provided.</p> <p><b>Keywords: Quantum Entropy, Quantum Control, Quantum Information</b></p>
<p><b>Sadia YunasButt</b> <b>ERCICSTR1910071</b></p>	<p style="text-align: center;"><b>A Systematic Review of SDLC's for Mobile Applications: Towards Optimum SDLC for Mobile Applications</b></p> <p style="text-align: center;"><b>Sadia YunasButt</b> Department of Computer &amp; Software Engineering, College of Electrical &amp; Mechanical Engineering (CEME), National University of Sciences &amp; Technology (NUST), Pakistan</p> <p style="text-align: center;"><b>Farooqu e Azam</b> Department of Computer &amp; Software Engineering, College of Electrical &amp; Mechanical Engineering (CEME), National University of Sciences &amp; Technology (NUST), Pakistan</p> <p style="text-align: center;"><b>Muhammad Waseem Anwar</b> Department of Computer &amp; Software Engineering, College of Electrical &amp; Mechanical Engineering (CEME), National University of Sciences &amp; Technology (NUST), Pakistan</p> <p style="text-align: center;"><b>Summair Raza</b> Department of Computer &amp; Software Engineering, College of Electrical &amp; Mechanical Engineering (CEME), National University of Sciences &amp; Technology (NUST), Pakistan</p> <p style="text-align: center;"><b>Abstract</b></p> <p>In software development, selecting the right SDLC plays a vital role. These SDLC's comprise of several activities to realize specifications into working applications. Nowadays, the demand and use of mobile technology are rising day by day, which illustrates the importance of a suitable, robust, and secure software development lifecycle for mobile application development. The current software development processes are not appropriate for developing mobile applications due to the inherently complex nature of these applications. Therefore, instead of using the conventional life cycle models, there is a need to come up with a fanatical lifecycle process model that could lead to successful mobile application development. Although Agile is a highly suitable development approach for mobile application development, there is a strong need to explore and summarize the latest Agile trends in the field of Mobile application development due to its uncertainty [66]. Therefore, this article performs a Systematic Literature Review (SLR) to identify 69 research studies available during 2013-2018[1-69] in the area of traditional, modern SDLC's, and mobile application development. Finally, comparative analysis of old and contemporary software life cycle models perform through a literature review that is broadly employed in software development and moreover highlighted the strengths and weakness of utilizing these models for mobile application development. It additionally emphasizes requisite for dedicated mobile application development lifecycle methods to produce prime quality mobile apps and minimize mobile app development concerns and errors that handled at the later stage.</p> <p><b>Keywords: SLR, SDLC; HDM; ADM; HYDM; Lightweight Methodology; Heavyweight Methodology</b></p>
<p><b>Ahmad Khodadadi Darban</b> <b>ERCICSTR1910072</b></p>	<p style="text-align: center;"><b>A Unique Technique for Nanocompound Composite Synthesis based on Sepiolite and Mg Al Layered Double Hydroxide</b></p> <p style="text-align: center;"><b>A. K. Darban</b> Visiting Professor at Nanyang Environment &amp; Water Research Institute Singapore and Chair of Modares Environmental Research Center, Tarbiat Modares university, Jalal Al Ahmad Ave., Tehran Iran</p> <p style="text-align: center;"><b>R. D. Webster</b> Assoc. Prof, Deputy Director, Environmental Chemistry and Materials Centre, Nanyang Environment &amp; Water Research Institute, Nanyang Technological University, Singapore 637371</p>

	<p style="text-align: center;"><b>H. Sediqi</b> Ph.D Student and Professor at Mining Engineering Department, Tarbiat Modares University, Tehran Iran</p> <p style="text-align: center;"><b>S. J. Koleini</b> Ph.D Student and Professor at Mining Engineering Department, Tarbiat Modares University, Tehran Iran</p> <p style="text-align: center;"><b>Abstract</b></p> <p>This research described a unique type of nanostructured materials based on the assembling of Hydrotalcite (HT) and exfoliated Sepiolite platelets. Mg/Al HT loaded on the platelets of Sepiolite (SEP) by co-precipitation method and the HT nanoparticle growth on the Sepiolite sheets. The prepared SEP-HT was modified with a cation surfactant solution and then fully separated of Sepiolite platelets was achieved by the exfoliation of SEP-HT composite in the polar solvent. The new nanostructured was formed by self-assembly of HT nanoparticle and SEP platelets. Characterization of the new composite investigated by use XRD, FTIR and SEM-EDS analysis. The resulted nanocomposite composed of positively charged HT and negatively charged SEP platelets. These materials exhibit a relatively high external surface area and mesoporosity. An attractive characteristic of these clay-based compounds is related to dual adsorption characteristics. The dual adsorption properties showing the feasibility to concurrently adsorb both cationic and anionic species. This research can suggest some new vision for extending a nanostructured material of cationic/anionic clay with a unique nanosheet structure.</p> <p><b>Keywords:</b> About Mg/Al Layered Double Hydroxide; Sepiolite; Nanostructured Materials, Modification, Exfoliation</p>
<p><b>Zafiar Naaz</b> ERCICSTR1910073</p>	<p style="text-align: center;"><b>Standardization of a PCR Technique for Early Detection of Bovine Tuberculosis in Fiji using Various Physiological Samples</b></p> <p style="text-align: center;"><b>Zafiar Naaz</b> University of the South Pacific, School of Biological and Chemical Sciences</p> <p style="text-align: center;"><b>Dr Ketan Christi</b> University of the South Pacific, School of Biological and Chemical Sciences</p> <p style="text-align: center;"><b>Prof. Ciro Rico</b> University of the South Pacific, School of Marine Studies.</p> <p style="text-align: center;"><b>Abstract</b></p> <p>Molecular biology is becoming a forefront to most of the scientific advancements in over the past few decades. In developing countries like Fiji, there are limitations and restrictions for cutting-edge scientific research. In this study, a polymerase chain reaction based method was introduced for fast and effective detection of Mycobacterium bovis in farm sample. Bovine tuberculosis is becoming a growing concern in Fiji and thus a new, more sensitive method of detection is essential to adequately identify the infected farms. According to OIE, World Animal Health Information System (WAHIS), no exact prevalence of the bovine tuberculosis in Fiji has been reported from 2016. While the cases reported from late 2013 till 2015 were only suspected cases and not confirmed. Thus a more effective method of diagnosis has been suggested in this study. A PCR method was standardized using blood, milk and nasal swab samples for detection of M. bovis using a primer pair designed to target a 300 bp 16S rRNA sequence. The primers were designed and tested in this study. The use of molecular based technique for early detection is effective for planning and implementing better eradication strategies.</p>

## **LISTENERS**

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- 2nd ICSTR Mauritius – International Conference on Science & Technology Research, 21-22 July 2019
- 3rd ICSTR Bangkok – International Conference on Science & Technology Research, 26-27 July 2019
- 2nd ICSTR Barcelona – International Conference on Science & Technology Research, 01-02 August 2019
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- 2nd ICSTR London – International Conference on Science & Technology Research, 12-13 September 2019
- 2nd ICSTR Jakarta – International Conference on Science & Technology Research, 19-20 September 2019
- ICSTR Hong Kong – International Conference on Science & Technology Research, 26-27 September 2019
- 4th ICSTR Dubai – International Conference on Science & Technology Research, 09-10 October 2019
- 2nd ICSTR Prague – International Conference on Science & Technology Research, 17-18 October 2019
- 4th ICSTR Bangkok – International Conference on Science & Technology Research, 17-18 October 2019
- 4th ICSTR Singapore – International Conference on Science & Technology Research, 15-16 November 2019
- 5th ICSTR Dubai – International Conference on Science & Technology Research, 11-12 December 2019
- ICSTR Sydney – International Conference on Science & Technology Research, 12-13 December 2019
- 3rd ICSTR Bali – International Conference on Science & Technology Research, 21-22 December 2019
- 5th ICSTR Bangkok – International Conference on Science & Technology Research, 23-24 December 2019
- 3rd ICSTR Malaysia – International Conference on Science & Technology Research, 29-30 December 2019