



The University of Fiji

School of Science & Technology Newsletter

Issue 2: December 2014



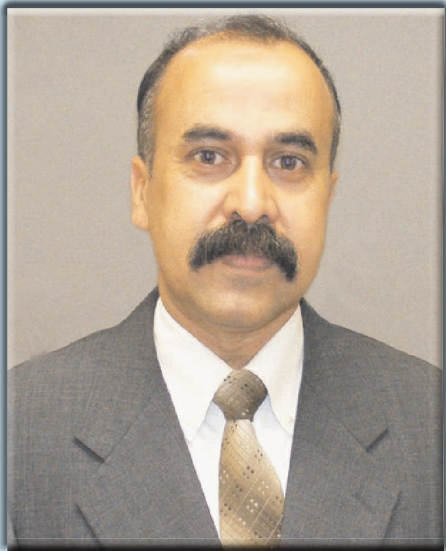
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Editor: Ms.Shireen Nisha

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MESSAGE FROM THE DEAN OF SOST



Professor ABM Shawkat Ali

I am happy to bring to you the final issue of the School of Science and Technology (SOST), UniFiji newsletter for 2014. You may witness a diverse and vibrant community dedicated to discovery, making knowledge a priority, and to developing all of its members as one SOST family to their utmost potential.

At the end of the year, I can proudly comment as follows: teaching, learning, research and community engagements are processing parallel in a better way with UniFiji's normal operation. Some unique events were conducted this year; for instance congregating with industry experts, student career fare, bringing experts from overseas, engaging our colleagues with overseas experts to share their research experiences and many more. Overall, we are just finishing a successful year.

Faculty and staff of SOST are dedicated in providing first-rate education that instills strong basic knowledge for sound practice in science and technology for the well-being of our Fijian society and the international community at large. The quality of our courses nurture creative thinking and prepare students for productive and rewarding careers. We are focusing highly on industry based attachment for our entire senior level students. In addition, at the graduate level, we engage with our local industry in collaborative research across all applied disciplines.

This is an exciting time to be a student at the SOST as we continue to grow and enhance our programs to maintain national interest. I encourage students to fully clinch and take full advantage of the rich learning environment available at SOST. For supporters and potential collaborators in industry, and elsewhere, I enthusiastically welcome your interest in the SOST. Please do not hesitate to contact me or any of our faculty members to pursue opportunities for collaborations. Finally looking forward to another successful year 2015.

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NEW STAFF INTRODUCTION

Mr Shelvin Chand

Part Time Assistant Lecturer in CS & IT Department

Mr Shelvin Chand joined the Department of CS & IT as a Part-Time Assistant Lecturer on 21st July, 2014. Mr. Chand was a full time Masters student (Graduate Assistant) at the University of South Pacific (USP) Laucala Campus prior to joining UniFiji. He completed his Bachelors and Masters degrees from USP attaining his Bachelor of Science in Computer Science & Information Systems in 2012 and Master of Science in Computer Science in 2014. His publications include the following:

- *S. Chand and R. Chandra, "Multi-Objective Cooperative Coevolution of Neural Networks for Time Series Prediction," in IEEE International Joint Conference on Neural Networks 2014, China.*

- *S. Chand and R. Chandra, "Cooperative Coevolution of Feed Forward Neural Networks for Financial Time Series Problem," in IEEE International Joint Conference on Neural Networks 2014, China*



Shelvin Chand

Mr Yogesh Maharaj

Part Time Tutor in Maths Department

Mr Yogesh Maharaj is originally from Labasa but has been residing in Nadi for the past two years. He joined UniFiji Department of Mathematics in July 2014 as a part-time tutor. He delivers lectures



Yogesh Maharaj

and conducts tutorial for final year degree students enrolled in MTH313. He is also a full time teacher at the International School Nadi, teaching Math and Physics to Diploma students. Mr. Maharaj has earned his Bachelor's Degree from the University of the South Pacific, majoring in Mathematics and Physics with teaching qualification (BscGCED). Currently he is pursuing his Post Graduate Diploma in Mathematics from the University of Fiji.

Mr Nawazish Ali

Part Time Assistant Lecturer in CS & IT Department

Mr Nawazish Ali joined CS& IT Department as a Part Time Assistant Lecturer based on Suva Campus. He also works as an Acting Quality Assurance Lead at Fiji National Provident Fund ICT Division. Mr Ali joined the UniFiji Suva campus in July 2014. In March 2013 he was employed as a Part Time Tutor in the Department and prior to this as an IT Assistant in IT Services Department of UniFiji. He finished his Bachelor of Information Technology in 2012, Post Grad Dip in Education from UniFiji in 2013 and is currently pursuing his Post Grad Diploma in IT. He also has a Class 3 Trade Certificate in Electrical/Electronic. His publications include the following:



Nawazish Ali

- S. Nisha, N. Ali and S. Ali, "Searching Quranic Verses: A Keyword Based Query Solution Using .Net Platform," in IEEE 5th International Conference on Information and Communication Technology for The Muslim World (ICT4M) 2014, Kuching, Sarawak, Malaysia.

DEPARTMENT EVENTS

ORGANIZED BY THE DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY

Masters Research Students Presentation

Mr. Anal D. Kumar, a graduate of The University of Fiji from the Department of CS & IT, in his capacity as a research master's student at UniFiji, did his Masters final presentation on Friday, 22nd August 2014 at



*A snap of Mr Anal Kumars i-Shop Project
Websites Home Page*

the Saweni Campus on the topic '**i-Shop: A Model for Smart Shopping**' an outcome of a project for his minor Thesis for his Master's in IT. As of September 2014, Mr Kumar took up work at The University of the South Pacific. Prior to this, he was working as an academic at Fiji National University. His research interest lies in Web based design, customer behavior monitoring and smart marketing.

PhD Students Presentation at Careers Teachers Conference

Mr Adarsh Kumar, formerly of Rakiraki, moved to Suva to attend Central Queensland University and attained his Bachelor of IT from there. Currently employed by Fiji Sugar Corporation, Mr Kumar, is pursuing his PhD studies in IT at UniFiji. In September this year, he presented on the topic: '**What Is Expected Of A Student In The Workforce**' in the Career's Teacher's Conferences held at UniFiji Saweni Campus.



*Adarsh Kumar Presenting at Career's Teachers
Conference*

Morning and Evening at Workplace

CST-Centre for Smart Technologies (CST) in collaboration with the Department of CS & IT organized "Morning and Evening at Workplace" event on the 26th of September, 2014, for the final year IT students with the intention of giving them a real perception of work life and to bestow on them the feel of reality in the industry.

From a meeting conducted of Industry Personnel from IT sector of various Industries, the Department found that students suffer from culture shock and information overloaded during their first 2 or 3 weeks on entry into their workplace and they struggle to overcome these challenges before getting a firm grasp of things and start work in any industry.

Morning and Evening at Workplace was thus organized to enable our graduates who are

in the industry to share their views, experiences, problems, and solutions with the final year students.

This event also gave the course coordinators a feedback on the relevance of the courses which are being taught. To fulfill this goal 3 speakers were invited, namely:

- Mr. Nawazish Ali who is working for FPNF as an Acting Quality Assurance Lead and is also teaching part time at our Suva Campus
- Mr. Prashneel Goundar who is working for ATS as a GT system analyst
- Mr. Joel Anjaiya who is currently working at the Fiji Sugar cooperation as a GT Application/Analyst Programmer



Assistant Lecturer Mr Alvin Prasad, host of the event says a few words



Invited Speakers Exchange Quick Greetings (far left), as Prof. Shawkat Ali has a talk with Vice Chancellor, Prof. Richard Coll



Vice Chancellor, Professor Richard Coll awarding a token of appreciation to the invited speakers: (left-right) Joel, Prashneel & Nawazish



The Industry Life Experiences Being Shared by: (left-right) Joel, Nawazish & Prashneel.

Final Year Students Presentation

As part of their final year, and in partial fulfillment of graduation requirements, undergraduate students in the CS & IT Department need to carry out a final-year project (FYP). The FYP is a substantial piece of work that will require creative activity and original thinking. A good FYP starts with the formulation of a problem, suggests alternative solutions, and then implements one of them. Thus the 2014 final year students presented their FYP on October 30.

The presentation was divided into three categories, namely, Mobile Application Development, Three Dimensional Design, and full course work based IT Project. The events panel of judges comprised of the Head of Department, Professor Shawkat Ali, Ms. Rajneesh Charan, General Manager

Information Systems at Fiji Sugar Corporation, Lautoka and Mr. Bimal Kumar, HOD CS Department at Fiji National University, Lautoka Campus. The panel assessed all projects and awarded best project at a small category to Student Grade Application under Mobile Application Development.

Under best major project category, ITC307 group project on UniFiji Online Student Registration System was selected. Certificates were given to all participants as an appreciation of their hard work and effort in their FYP. The presentation of awards and certificates was done by the Vice Chancellor Professor Richard Coll the following day at a farewell treat given to these student by the CS & IT department.



Full Coursework ITC307 Students Presenting their FYP: UniFiji Online Registration System



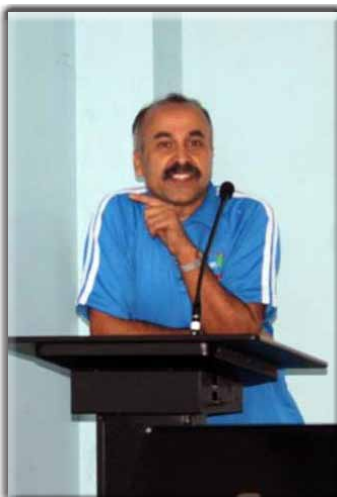
Happy Faces After Presentation of their FYP



Invited Guests, Prof. Richard Coll and Prof. Webster and CS&IT Academic Staff look on at Year 3 students FYP Presentations



Judges Mr. Bimal, Prof. Ali & Ms. Charan Assessing Student Projects



Dean SOST & H.O.D CS & IT, Prof. S. Ali Gives Words of Advice & Encouragement to our Students.



CS & IT Department Pose With Final Year IT Students. One Family: Our Students - Our Pride!

Final Year Students Farewell Party

Three precious years of association, going through the ups and downs of Uni life, passing all hurdles to realize that dreams have wings and soaring high has passed in a flash and now arrives the time to bid farewell to the institution and department which created many fond memories. These thoughts go in the mind of all our final year students. Thus in a bid to make their last year at Uni memorable and to wish them well for the future the Department of CS & IT organized a Farewell Treat for all our students, where the FYP Best Project Awards were given. All students were also presented with Certificates of Appreciation for their hard work throughout the year as seen in their FYP presentation.

The programme began with a warm welcome speech by the Vice Chancellor, Professor Richard Coll followed by Professor Shawkat Ali praising the final year students for their hard work and encouraging them to be good ambassadors of the university.

The programme unfolded a surprise birthday wish and cake for one of the students by his friends for his 21st birthday cake. The event coordinator Mr. Sarnesh Deo (Assistant Lecturer) led the team through a photo session followed by a wonderful late lunch of traditional Fijian Lovo.



Hard at Work: Mr. Sarnesh Deo (far left in blue) and Mr Alvin Prasad (far right in yellow) & final year students busy with lovo preparations and lunch set up.



Prof. Richard Coll and Prof. Shawkat Ali Relaxing



Ladies take out time for the Camera! These students are trying to capture all memories of this event



Vice Chancellor, Prof. Coll & SOST Dean Prof. Ali take a pose with best app project winners (Neeraj & Shivneel) with Course Coordinator Assistant Lecturer Mr. Sarnesh Deo



Prof. Coll & Prof. Ali take a pose with best project winners (Neeraj, Avneel, Shivneel & Aaron, missing is Margaret) with Course Coordinator Assistant Lecturer Ms. Shireen Nisha

2014 IEEE APWC on CSE

The University of Fiji hosted the 2014 IEEE Asia Pacific World Congress (APWC) on Computer Science & Engineering on the 4th and 5th of November at Plantation Island Resort. This is the first time a Conference of such a magnitude was held in Fiji. Experts from Germany, Japan, Australia, New Zealand and USA attended the conference.

The conference received over 100 paper submissions relating to areas such as Big Data, Software Engineering, Bio-Medical Engineering, Information Systems, Robotics, Internet of Things and Security. Out of these 100+ papers, 47 top papers were selected to be presented at the conference and to be subsequently included in the conference proceedings which will be available online via the IEEE Xplore Digital Database. These 47 accepted papers also include a number of submissions from local academics and students.

The Institute of Electrical and Electronics Engineers (IEEE) is the world's largest professional association for the advancement of technology. IEEE has a number of conferences which are held each year in different parts of the world focusing on some specific topic or issue related to Computer Science, Mathematics and Engineering. It also has a number of top ranked journals which further support the ever expanding body of knowledge. The 2014 IEEE APWC was proudly sponsored by University of Fiji, University of South Pacific, i-Lab Australia, Academy Publisher and the IEEE Computer Society.



Conference Participants Busy Presenting their Papers



Listening to Participant Presentations

Participants: (right) Dr. Salleh, Head of CS Dept. IIUM, Malaysia

Vice Chancellor, Prof. Richard Coll pose with Authors of the Best Paper Simon Boxnick, Sebastian Lauck and Jens Weber of University of Paderborn, Germany



Participants Enjoying the Cool Breeze and Island Lunch

Visiting Professors Lecture

On 7th November 2014, two prestigious Professors, Dr. Gautam Das and Dr. Sanjay Misra spent the entire day at the UniFiji Saweni Campus. The Programme, 'A Day with Professor Das & Professor Misra', saw a session of lectures given by both the professors and also having a forum on techniques of writing a journal paper, with morning and afternoon tea and cafeteria lunch. Research oriented students also got a chance to do a one on one discussion with the professors.

Originally from Pratapgarh (U.P.), India, **Professor Misra** is a Professor of computer engineering in Covenant University, OTA, Nigeria. He has tremendous amount of experience as a software engineer, an academic and as a researcher. He is author of more than 150 papers (majority of them is in ISI Web of Sciences) and chairs several International IEEE conferences annually. Presently, he is chief editor of International Journal of Physical Sciences, and founder EIC of Covenant J. of ICT (An official Journal of Covenant University) and International Journal of Computer Science and Software Technology (IJCSST).

Professor Gautam Das, currently Head of the Database Exploration Laboratory (DBX-LAB) at the CSE department of University of Texas at Arlington has previously held positions at Microsoft Research, Compaq Corporation and the University of Memphis. Dr. Das has broad research interests in all aspects of Big Data Exploration and has resulted in over 150 papers, many of which have appeared in premier data mining, database and algorithms conferences and journals. He is on the Editorial Board of the journals Association for Computing Machinery- Transactions on Database Systems (ACM TODS) and IEEE Transactions on Knowledge and Data Engineering (TKDE).



Professor Misra (on the left) Delivers His Talk



Professor Das Explaining a Concept in the Techniques of Journal Writing Forum



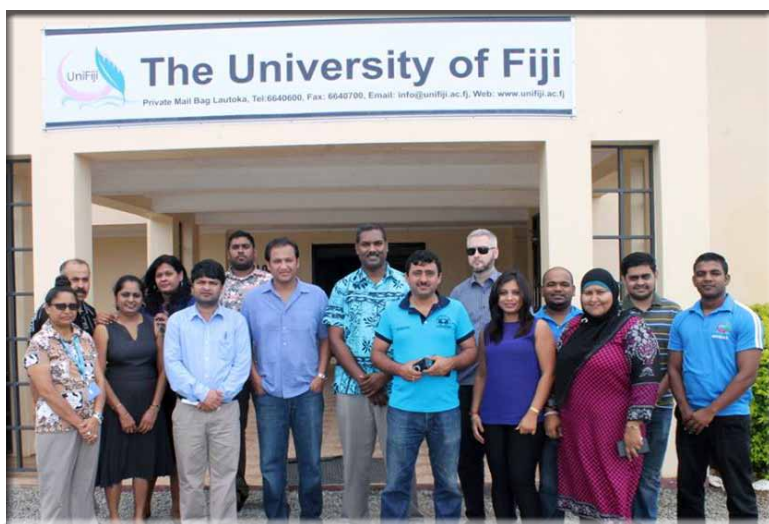
Prof. Ali presents a Token of Appreciation to Prof. Misra



Prof. Ali presents a Token of Appreciation to Prof. Das



Prof. Das & Prof. Ali having a lively conversation during afternoon tea.



Dean SOST, Prof. S. Ali, HOD-Science, Dr. P. Kilgas, Acting HOD-Maths, Ms S. Menon, SOST Staff with Prof. Das, Prof. Misra & Ms .Charan

Paper Presentation at International Conference ICT4M 2014

Theme : "Socio-Digital Transformation For The Ummah"

IEEE 5th International Conference on Information & Communication Technology For the Muslim World (ICT4M) 2014 was hosted by Kuliyah of Information and Communication Technology (KICT) of the International Islamic University Malaysia (IIUM) and took place at Riverside Majestic Hotel Conference Chamber 3 from November 17- 18 in Kuching, Sarawak, Malaysia.

This was followed by ICT4M Workshop held by Faculty of Computer Science & Information Technology (FCSIT), at Universiti Malaysia Sarawak (UNIMAS), Malaysia's eighth University on 19th November 2014. ICT4M marks an important historical event for IIUM and UNIMAS as they signed a MOU between the two universities.

Assistant Lecturer, **Ms Shireen Nisha**, presented a paper titled 'Searching Quranic Verses: A Keyword Based Query Solution Using .Net Platform' at ICT4M.

This paper is an outcome of her Masters Course work Unit ITC410: Supervised Project with coauthor Mr. Nawazish Ali under the supervision of Professor Shawkat Ali. After the 2 day conference, Ms Nisha attended the workshop at UNIMAS.

It's been an honour and privilege to make it to the conference. It was a wonderful learning experience for Ms Nisha as it was her first paper, her first conference, her first trip by air, and her first trip out of Fiji.

Grateful acknowledgement to The University of Fiji for sponsoring Ms Nisha's travel, conference fee and accommodation in Malaysia.

Sincere gratitude and thanks goes to supervisor, Professor Shawkat Ali for believing in his students and inducing the culture of research in them.

ICT4M Workshop

Conducted by the Faculty of Computer Science & Information Technology (FCSIT) at Universiti Malaysia Sarawak (UNIMAS), on 19th November 2014.

Workshop 1 was on "**Research Methods**" and



Dr. Alistair Sutcliffe

was conducted by **Dr. Alistair Sutcliffe** (MA Cantab-Natural Sciences, PhD Wales), who is Professor of Systems Engineering, and Director of the Centre for HCI Design, in the School of Informatics, University of Manchester. His research spans software engineering, human computer interaction, cognitive and social

science, with recent interests in scenario based design, methods for requirements engineering, analysis and modelling complex socio technical systems, visualization and creative design. He serves on the editorial boards of several journals in the software engineering and human computer interaction.

Workshop 2 was on "**Systematic Literature Reviews (SLR)**" conducted by



Dr Norsaremah Salleh

Asst. Prof. **Dr. Norsaremah Salleh**, Head of Computer Science Department at IIUM. She obtained her PhD degree in Computer Science from the University of Auckland in 2011. Her research interests include the areas of empirical software engineering, evidence-based research, computer science and software engineering education, and social network sites research. Her work appears in IEEE Transactions on Software Engineering, Empirical Software Engineering Journal and premier SE conferences including ESEM, ICSE, and CSEET. More details about her research can be found in <https://sites.google.com/site/norsaremahsalleh/>

Some Glimpses of ICT4M



Ms Nisha at ICT4M Conference with Academic Staff of KICT, IIUM on Day One at Riverside Majestic Hotel - 17th Nov, 2014



Ms Nisha Presenting her paper at ICT4M Conference on Tuesday 18th November at 9.20am Malaysia Time

Ms Nisha Responding to Questions After her Paper Presentation -18th Nov, 2014



Conference lunch with KICT Staff: (left to right) Dr. Shuhaili, Dr. Normi, Dr. Shima, Dr. Azlin, Dr. Lili with Ms. Nisha



Ms Nisha Posing with KICT Staff & the Cultural Group after their Performance at Conference Dinner at Grand Margherita Hotel



Cultural Group Performing at Conference Dinner at Grand Margherita Hotel



Outside Teaching Lab 1 of UNIMAS for Workshop - 19th Nov, 2014



Twin Water Towers of UNIMAS are the tallest in Sarawak & can be seen from Kuching International Airport. It filters & stores water.

CENTRE FOR SMART TECHNOLOGIES (CST)

Research Grants

Professor A B M Shawkat Ali et al.

Under the leadership of Professor Shawkat Ali, CST received two research grants;

One of 18,500 FJD for equipping a Networking Lab for research and post graduate studies. The lab now has its own IBM x3100 M4 server with 8GB RAM and 2TB HDD capable of cloud computing and network security projects. The desktop PCs are 3.0GHz Pentium systems with 4GB RAM and 500GB HDD. All systems are equipped to communicate wirelessly via Dual band 300MBPS router. The lab will be fully operational in 2015.

The other research grant of 16,500 FJD for the research project titled "Integrating solar photovoltaic power in the National Grid- A study about the possibility in context of Fiji," which will be carried out by CST in the Western parts of Viti Levu.

CST Short Courses

Computers for Beginners

Information users of today should be familiar with and know how to use features and capabilities of computers especially Microsoft Office suite. Thus CST enabled its journey of short courses with "Computers for Beginners", which navigates through Microsoft Office 2007 Word, Excel, PowerPoint software at a beginner level, enabling students to create and edit professional-looking documents for a variety of purposes and situations. The course commenced on 8th and finished on 11th December with each student getting a certificate of completion.



Course Instructor Mr. Alvin Prasad busy demonstrating MS Office Concepts



Mr. Prasad presents Ms. Nikeshni Lata with Certificate of Completion



Mr. Prasad & Ms. Nisha from CS & IT Department take a pose with students displaying their achievement certificates.

Introduction to VB.Net

CST introduces its first short course in the programming field with VB.net. The course was designed to give learners a practical and theoretical foundation in computer programming for the Windows environment. It enables students to write Visual Basic .NET codes easily, and to further prepared to develop their programming skills, be it in Visual Basic.Net or in any other Windows programming language. The course commenced on 8th and finished on 12th December with each student getting a certificate of completion.



Course Instructor Mr. Sarnesh Deo take a pose with students



Mr. Deo presents (from top left going clockwise) Ms. Falguni Patel, Ms. Sheetal Shalini, Ms. Shaniza Nisha & Ms. Priya Pritika with Certificate of Completion

ORGANIZED BY THE DEPARTMENT OF SCIENCE

ECO-CONTEST, 2014

Science Department together with CCCEESD organized the Eco-contest quiz competition, 2014. The event was sponsored by McDonald's Fiji. The elimination round for the eco-contest was held on the 25th of July in which a total of 22 schools participated. The 8 qualifying schools from this round proceeded onto the pool games which were held on the 11th of September.

The finals and semifinals were held on the 12th of September and Penang Sangam High School became winners of the 2014 Eco contest. The runner-up and the winning school received a laptop for their school, tablet PC for the students, trophy and certificates of participation.

This contest aimed to create "Youth Ambassadors of Natural Resources and Environment" among our secondary school students and to provide a unique opportunity to engage various secondary schools in the Western division to increase their interactions while developing strong collaborations and healthy competitions.

Winner: Penang Sangam High School, Rakiraki
Student names: Raastika Devi, Shreya Prakash, Ruci and Doyal Kumar

Runner Up: Xavier College, Ba
Student names: Pratik Vijay Maisuria, Akaansha Ram, Vasemaca Rasaku, Donna Chen



Xavier College and Pt. Vishnu Deo Memorial College participating in the eco-contest quiz rounds conducted by Ms Priyatama



Dr. Syed Ghani supervising the eco-contest elimination round at the University of Fiji, Saweni Campus



Students from Lautoka Andhra Sangam College Deepa Dharshani, Shital Reddy and Akash Prasad participating in the eco-contest elimination round



Students from Xavier College Participating in Buzzer Round



Eco-Contest Quiz Competition Awards for Winners & Runner Ups



Managing Director of MacDonalds Fiji, Mr. Marc Mcelrath presenting Eco-Contest Quiz Winner Trophy & Prizes to the Winning Team of Penang Sangam High School.



Judges in Action: (left to right) Dr. Priit Kilgas, Dr. Syed Ghani and Mr. Ramendra Prasad



Dr. Priit Kilgas, Dr. Syed Ghani and Mr. Mcelrath with Winners & Runner Up



Department of Science Staff with Mr Brain Watson, former Chairman of NBCC, Mr. Marc and Winners Penang Sangam High

PACAM Visit and Acceptance

Pacific-American Climate Fund (PACAM), a funding agency, has accepted a project proposal submitted by The Department of Science in collaboration with CCCEESD. The project titled “Developing the Capacity to Generate Coastal and Shallow-Water Basemaps for Tropical Island Nations and Territories of the Pacific” will be carried out in partnership with the University of South Florida.

The main team members of this project from UniFiji include the Science Department’s staff, Prof Shawkat Ali and Mr. Kamlesh Arya. Ms. Roselyn Naidu is leading the project as the Principal Investigator. The University of South Florida team includes Professor. Muller-Karger and his two graduate students.

The objective of this project is to develop an intelligent, large-scale systematic data processing system to derive high-resolution, thematic maps that illustrate baseline geomorphological characteristics and human uses of these global coastal ecosystems, including coral reefs, wetlands (mangroves, salt marshes, beaches), and coastal aquaculture systems using computational intelligence.

This user friendly interface system, once developed, will be available to the public for use. The project will also help develop local capacity at The University of Fiji in the area of satellite imagery and assist in the development of new courses in the area of Geographic Information Systems. The PACAM team visited UniFiji for a pre-award survey on the 29th – 30th of September, 2014. Currently we are awaiting the results of this survey.

Research Grants

Two research grants from Fiji Higher Education Commission were awarded to Science Department’s staff members:

Dr. Priit Kilgas

A research grant of 10 000 FJD was awarded to Dr. Priit Kilgas. The title of the research project is “Why highly invasive species are successful colonizers of novel environments: investigations of two vertebrate groups”. The project will look at blood parameters and behaviour in invasive birds (mynas and red-vented bulbuls) and amphibians (cane toads).

Dr. Syed Ghani

A research grant of 10 000 FJD was awarded to Dr. Syed Ghani. This research project which is being carried out by CCCEESD is titled “Analysis of heavy metal accumulation in fishes around Lautoka and its implications on human health” will investigate fishes living in polluted waters that accumulate considerable amount of various metals in their tissues.

Ms. Roselyn Naidu & Ms. Priyatama Singh

Under the effective leadership of Ms Roselyn Naidu and Ms Priyatama Singh, the Department of Science is on the verge of receiving two big research grants from USAID in 2015.

Concept paper submitted in collaboration with Empower Pacific Grants

Submitted Project Concept Paper

Department of Science & Empower Pacific partnered up and submitted a concept paper titled “Sustainable livelihoods for Nabuna and Vanuakula” to the Pacific American Climate Fund for consideration. Ms. Priyatama Singh worked closely with the Project Manager of Empower Pacific to develop the concept paper. The major objective of this project is to improve the capacity of villagers in Nabuna and Vanuakula to develop sustainable farming practices and generate alternative sources of income to increase their adaptive capacity to climate change and variability impacts

Renewable Energy in the Pacific: Developing Skills and Capacity (EPIC) Roundtable Meeting

A round table meeting on Renewable Energy in Pacific Islands: Developing Skills and Capacity (EPIC) was held at the University of Fiji, Saweni Campus from 25th – 27th of November, 2014.

The meeting was hosted and organized by Uni-Fiji's CCCEESD (Centre for Climate Change, Energy, Environment and Sustainable Development) and The Department of Science with support from its two partners, The University of Alicante (UA) and The University of Papua New Guinea (UPNG).

The EPIC project is being sponsored by the European Commission. The three day event was divided into inauguration ceremony,

presentations, roundtable discussions, consultations, and field trips and was largely a collaborative event.

The objective of this meeting was to encourage regional cooperation in renewable energy by establishing a Master's in Renewable Energy Management (REM) programme and a Centre of Renewable Energy (CORE) in both Fiji and Papua New Guinea.

The Master's programme in Renewable Energy Management serves as a base to equip the new scientists and managers with up-to-date knowledge in renewable energy issues. The CORE will facilitate research and cooperation at national and international levels in the field of Renewable Energy (RE).



Eager Listeners of the EPIC Discussion



SOST Dean Prof. Shawkat Ali gives a talk.



Professor Kaluwin of University of Papua New Geniue gives a talk at EPIC Workshop.



Mr. Spike Tang, of University of Alicante, Spain, sharing ideas in his capacity as EPIC Project Manager



Assistant Lecturer, Mr. Aman Deo delivering a talk on Climate Change in Fiji



Assistant Lecturer, Mr. Ramendra Prasad gives a talk.

Field Trips

Nadarivatu Dam

A field trip to the Nadarivatu Dam was undertaken by Physics students and staff on the 26th of September, 2014. It provided the students with the opportunity to observe up-close the 41.7 MW hydroelectric dam in action.



Nadarivatu Dam site

Students and staff during the Nadarivatu field trip

Fiji Sugar Corporation (FSC) Lautoka Mill and Fiji Waters Dam

Chemistry year 3 and Natural Resource Management (ESC300) students went to the Fiji Sugar Corporation (FSC) Lautoka Mill (6th October, 2014) and Fiji Waters, Tavua (16th October, 2014) as part of their course requirements.



Dr. Syed Ghani with students during their field trip to FSC Lautoka Mill

Students and staff during their field trip to Fiji Waters

Australian Awards Scholarship 2015 Masters Programme

Asst. Lecturer, Ms. Geetika Nanad received Australian Awards Scholarship for 2015 for Masters Programme, which is a prestigious international scholarships and fellowships funded by the Australian Government and aims to contribute to the long term development needs of Australia's partner countries, in line with bilateral and regional agreements. Ms. Nanad intends to study at the University of Queensland in



Ms. Geetika Nand

Australia and will be pursuing Master of Philosophy for 2 years in Plant Biology and Crop Science. Her research will be based on testing drought tolerance in different plant varieties. Ministry of Agriculture is currently doing research in drought adaptation in wheat, sugar cane and root crops. On her return she hopes to use the knowledge gained in teaching at UniFiji and also do research in collaboration with the Ministry of Agriculture as a research officer.

SOST 2014 STAFF GET TOGETHER

SOST Board of Studies meeting (BOS) held on 28th November, 2014 at Saweni Campus ended successfully with a staff end of year dinner at Boatshed Restaurant & Spa at Vunda Marina, Lautoka which also saw the farewell of the Vice Chancellor, Professor Richard Coll and Ms Geetika, Assistant Lecturer in the Department of Science. This gathering gave a chance to all SOST staff to relax, mingle and enjoy the company of each other and at the same time show appreciating and bid farewell to those who helped contribute to a successful 2014 but wont be here for 2015. This event marked the end of a successful year.



Vice Chancellor Professor Richard Coll and SOST Professor Shawkat Ali Pose Outside of BoatShed Restaurant



Prof. Ali Says a Few Words in Honor of VC, Prof. Coll



Prof. Shawkat Ali presents a Farewell Gift to Prof. Richard Coll



Professor Richard Coll Says a Few Words.



Ms Priyatama presents Ms Geetika with a Farewell Gift



SOST Staff pose with Professor Richard Coll

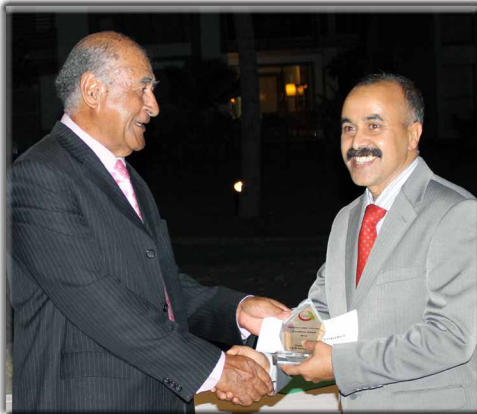


Random Style Poses by SOST Staff

UniFiji Vice-Chancellor's EXCELLENCE AWARDS NIGHT

University of Fiji Inaugural Teaching and Research Excellence Awards at Maravu Restaurant, Fiji Beach Resort and Spa on Denarau on Friday 5th December saw a wonderful outcome for SOST colleagues as SOST received 67% of UniFiji Vice-Chancellor Awards with the following outcomes:

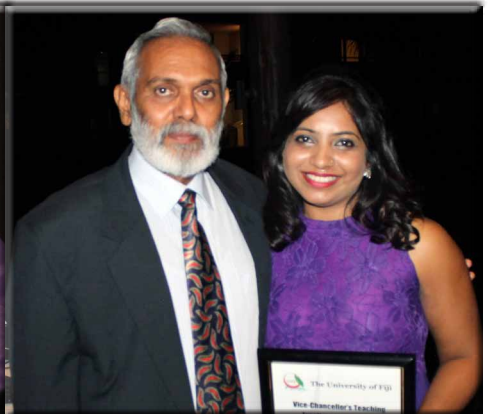
1. Professor Shawkat Ali - Vice-Chancellor Research Excellence Award
2. Dr. Syed Ghani- Second Runner-up Vice-Chancellor Research Excellence Award
3. Sarnesh Deo- First Runner-up Vice-Chancellor Teaching Excellence Award
4. Roselyn Naidu- Second Runner-up Vice-Chancellor Teaching Excellence Award



*The President of Fiji,
His Excellency,
Ratu Epeli Nailatikau
awards Professor Shawkat Ali
with VC's Research Excellence Award*



*The President of Fiji,
His Excellency Ratu Epeli Nailatikau
awards Mr. Sarnesh Deo
1st runner up for
VC's Teaching Excellence Award*



*Ms. Roselyn Naidu, recipient of the
2nd runner up for VC's
Teaching Excellence Award
takes a Pose with
the Registrar, Ambassador Kamlesh Arya.*



*Colleagues from SOST display their certificates of achievements,
(from left to right)
Mr. Sarnesh Deo, Ms. Roselyn Naidu, VC Prof. Richard Coll,
Prof. Shawkat Ali and Mr. Aman Deo (on behalf of Dr. Syed Ghani)*

SOSTs Presence at UN Convention on Climate Change in Lima, Peru.

United Nations Climate Change Conference, COP20 or CMP10 was held in Lima, Peru, from December 1-12, 2014. It marks 20th yearly session of the Conference of the Parties (COP 20) to the 1992 United Nations Framework Convention on Climate Change (UNFCCC) and the 10th session of the Meeting of the Parties (CMP 10) to the 1997 Kyoto Protocol. The conference delegates comprising of members from nearly 200 countries worked on negotiations towards a global climate agreement during the conference. Dean of SOST, Professor Shawkat Ali, joined as a Fiji Government Delegates Team Member for the UNFCCC and represented Fiji.



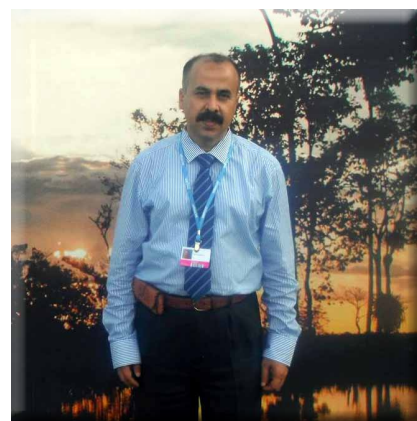
Conference Executives with United Nations Secretary



Professor Shawkat Ali (right in Red) at UN COP20, having a Wonderful Experience of being so closer to UN Secretary General.



Prof. Ali with the Ministry of Environment and Forests, Anwar Hossain Manju (3rd from right), Dr. A K Abdul Momen, permanent representative at UN COP20 (2nd from right) and other delegates from Bangladesh.



Prof. Ali Enjoying Sunset at Lima Peru

SOST Presentations, Participation in Workshop / Seminar / Symposium & Publications

Workshop & Special Events Participation

- Ms. Roselyn Naidu attended the workshop on **Research and Development Processes for the Public Service** in Suva from 4th – 5th September, 2014.



Ms. Roselyn Naidu with other Participants of the Workshop

- Dr. Syed Ghani and Dr. Priit Kilgas attended the Workshop on **Committee for Accreditation of University Qualification (CAUQ)** organized by FHEC at USP on 16th & 18th September, 2014.
- Dr. Priit Kilgas presented a paper titled **“How to Motivate Students?”** at the Teaching and Learning Development Unit (TLDU) staff professional development session held at the University of Fiji on the 5th of November, 2014.



Dr. Priit Kilgas Presenting at the TLDU Staff Professional Development Session

- Ms Shireen Nisha attended a Workshop on **“Research Methods”** conducted by Dr. Alistair Sutcliffe and **“Systematic Literature Reviews (SLR)”** conducted by Dr. Norsaremah Salleh, organized by the Faculty of Computer Science & Information Technology (FCSIT) held at Universiti Malaysia Sarawak (UNIMAS), on 19th November 2014.

- Mr Nikleshwar Dutt, Assistant Lecturer in Mathematics Department, attended Annual Awards Night Ceremony as Chief Guest at Veisaru Sanatan Dharam School on 20th November.



Mr. Dutt Presenting Award to Student

Conference Presentation

- Mr. Aman Deo presented a paper “**Climate Change Adaptation in Fiji**” at the conference on Climate Change Adaptation 2014: Future Challenges, hosted at the Griffith University, Gold Coast Australia from 29th September to 2nd October, 2014.

UoF support in attending the National Climate Change Adaptation Research Facility is very much appreciated. The conference hosted by Griffith University is an initiative of, and funded by, the Australian Government. Mr. Deo presented on the issue of business as usual: productivity and prosperity, with the presentation titled as Climate Change Adaption in Fiji. This Conference showcased the growing body of climate change adaptation knowledge in Australia and internationally, how this knowledge is being used by communities, governments and industry to adapt to the impacts of climate change, the contribution of adaptation science to planning and policy making across Australia, and how robust adaptation decisions can be made in the face of uncertainty.



Mr. Aman Deo Presenting at the Climate Change Adaptation Conference

- Ms. Shireen Nisha presented a paper “**Searching Quranic Verses: A Keyword Based Query Solution Using .Net Platform,**” at the IEEE 5th International Conference on Information and Communication Technology for The Muslim World (ICT4M), hosted at Riverside Majestic Hotel, Kuching, Sarawak, Malaysia from 17th - 19th November 2014.
- Dr. Syed Ghani will be presenting a paper “**Trends in Mean Maximum Temperature, Mean Minimum Temperature and Mean Relative Humidity for Lautoka, Fiji During 2003 – 2013.**” in the International Congress on Environmental Research in Bangalore, India from 26th-28th December, 2014.
- Mr Nikleshwar Datt is currently actively conducting research in collaboration with the Education Department on “**Teachers’ Attitude Towards Teaching Mathematics In Upper Primary schools In Fiji: A Case Study of the western Primary Schools**”.

Submitted Papers

- Deo A., and Ghani, S. S., **Synthesis and Characterization of Silver Cluster particles in Hydrogels**. Submitted to Journal of Polymer Engineering.
- Farik, M. and Ali, ABM S. (2014), **“Recurring Security Gaps in IEEE 802.11n Wireless Access Points”**, Submitted to the 14th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (IEEE TrustCom-15) will be held in Helsinki on 20-22 August 2015.
- Ghani, S. S., and Deo A. **Synthesis and characterization of N2S2 - Tin macrocyclic complexes of Co(II), Ni(II), Cu(II) and Zn(II)**”. Submitted to Main Group Metal Chemistry (MGMC).

Publications - Book / Journal /Conference Papers

- Arif, M. T., Amanullah M. T. Oo, and Ali, ABM S., **Energy Storage for Power Utility**, LAP LAMBERT Academic Publishing, Germany, 2014, ISBN-13: 978-3-659-56371-3.
- Azad, S., Ali, ABM S. and Wolfs P. , **Identification of Typical Load Profiles using K-Means Clustering Algorithm**, In the proceedings of IEEE Asia-Pacific World Congress on Computer Science and Engineering 2014, Fiji, 4-5th November 2014.
- Deo, S., Sen. D. and Ismail, M. I. , **Teaching Programming at Distance Learning Mode in Fiji: Survey of Two Campus of the University of the South Pacific (USP)** (July 8, 2014). Available at SSRN: <http://ssrn.com/abstract=2493525>
- Habiba, M., Islam, M. R., and Ali, ABM S. **A Unified Architecture for Utility Service in Cloud**, In the proceedings of IEEE Asia-Pacific World Congress on Computer Science and Engineering 2014, Fiji, 4-5th November 2014.
- Khan, Z, Ali, ABM S. and Riaz, Z. (Eds.), **Computational Intelligence for Decision Support in Cyber Physical Systems**, Springer, 2014, ISBN 978-981-4585-35-4.
- Nisha, S., Ali, N. and Ali, ABM S., **Searching Quranic Verses: A Keyword Based Query Solution Using .Net Platform**, Accepted for 2014 5th International Conference on Information & Communication Technology for the Muslim World (ICT4M), Malaysia, 21-23 Nov. 2014.
- Shafiullah, GM., Amanullah M. T. Oo, Stojcevski, A. and Ali, ABM S., **“Integration of Roof-Top Solar Photovoltaic Systems into the Low Voltage Distribution Network”**, Journal of Renewable and Sustainable Energy, vol. 6, AIP, 2014.
- Shah, T. and Ali, ABM S. **Storage Cost Minimizing in Cloud – A Proposed Novel Approach Based on Multiple Key Cryptography**, In the IEEE proceedings of Asia-Pacific World Congress on Computer Science and Engineering 2014, Fiji, 4-5th November 2014.
- Zuo, Y. Ali, ABM S. and Yada, K. **Consumer Purchasing Behavior Extraction Using Statistical Learning Theory**, 18th International Conference on Knowledge-Based and Intelligent Information & Engineering Systems, Gdynia, Poland, 15-17th September 2014.

Upcoming Events



Designer: Ms. Shireen Nisha
Assisted by: Ms. Madhu Prasad