POST CONFERENCE REPORT

International Conference on Computing, Analytics & Networks

ICAN 2017

October 27-28, 2017
Chitkara University, India

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Springer

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Report By

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Dean (Research), Chitkara University, India.

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Table of Contents

Meet the Organizer – Chitkara University	1
ICAN2017 Sponsors, Patrons & Supporters	2
ICAN2017 Dashboard	3
ICAN2017 Committees	4
ICAN2017 Theme	5
Introduction	6
ICAN2017 Delegates Distribution Plots	7
Inaugural Ceremony & Keynote Talks	8
Tutorial Session	13
Paper Presentations	14
Let's Hear from the Delegates	18

Meet the Organizer – Chitkara University

The state governments of Punjab and Himachal Pradesh under the provisions of their respective state legislature acts have established two campuses of Chitkara University –Chitkara University, Punjab & Chitkara University, Himachal Pradesh. Both these Universities are government recognized and sanctioned by UGC with the right to confer degrees.

With Dr. Ashok Chitkara and Dr. Madhu Chitkara (hard core academicians with more than 40 years of experience in academia) at the helm of affairs, whole ethos system at Chitkara University campuses is very different and learning-centric. Strong industry engagement, a vibrant culture to research and innovate, 100 % application oriented teaching while following highest of the academic standards are just few of highlights of the great systems being followed at Chitkara campuses. Tie-ups with industries like nVidia, NXP Semiconductors, Texas Instruments, ARM, Dassault systems, SAP, Wipro, Infosys and many more speaks about the stringent effort being put in by each and every member of Chitkara University for a great overall outcome. Chitkara remains one of the top choices for engineering aspirants in the northern part of the country every year and has been growing very fast on pan India basis so as to produce engineering professionals of the highest standards. Other than Engineering, Chitkara University also offers programs in Business management, Architecture, Health care Sciences, Mass media, Education, Pharmaceutical Sciences and Nursing.

Chitkara University, Punjab
www.chitkara.edu.in

Chitkara University, Himachal Pradesh
www.chitkarauniversity.edu.in

Prominent Engineering Conferences Organized by Chitkara University

- *International Conference on Computing, Analytics & Networks (5 editions) - WECON2008, WECON2009, WECON2011, WECON2015, WECON2016*
- *VLSI Design & Test Symposium - VDAT2010*
- *International Conference on High Performance Architecture & Grid Computing 2011*
- *6th International Conference on Communication Systems and Network Technologies - CSNT2016*
- *International Conference on Recent Trends in Nuclear Physics 2012*
- *International Conference on Sustainable Civil Engineering Practices 2016 & 2017*
- *Chitkara University Doctoral Consortium - CUDC2017*
- *International Conference on Computing Analytics & Networks - ICAN 2017*

Upcoming Conferences

- *6th International Conference on Wireless Networks & Embedded System – WECON2018*
- *ACM Compute 2018*

ICAN2017 Sponsors, Patrons & Supporters

Springer

Springer is a leading global scientific, technical and medical portfolio, providing researchers in academia, scientific institutions and corporate R&D departments with quality content through innovative information, products and services. Springer has one of the strongest STM and HSS eBook collections and archives, as well as a comprehensive range of hybrid and open access journals.

Springer is part of Springer Nature, a global publisher that serves and supports the research community. Springer Nature aims to advance discovery by publishing robust and insightful science, supporting the development of new areas of research and making ideas and knowledge accessible around the world. Springer publishes more than 2,900 journals and 250,000 books.

Source – www.springer.com

The post conference proceedings of ICAN2017 to be published by Springer in Communications in Computer and Information Science (CCIS) Series.

BCIT
BRITISH COLUMBIA INSTITUTE OF TECHNOLOGY

The British Columbia Institute of Technology (also referred to as BCIT), is a public polytechnic institution of higher education. The post-secondary institute has five campuses located in the Metro Vancouver region, with its main campus in Burnaby, British Columbia, Canada. There is also the Aerospace Technology Campus in Richmond, the Marine Campus in the City of North Vancouver, Downtown campus in Vancouver, and Annacis Island Campus in Delta. It is provincially chartered through legislation in the College and Institute Act. The school operates as a vocational and technical school, offering apprenticeships for the skilled trades and diplomas and degrees in vocational education for skilled technicians and workers in professions such as engineering, accountancy, business administration, nursing, medicine, architecture, and law.

Source – Wikipedia

NEWGEN
One world. One workplace.

Newgen Software Technologies Limited is a privately held IT company headquartered in New Delhi, India. Newgen was founded by Mr. Diwakar Nigam, its current CEO, in 1992. It has investors namely SAP Ventures (now Sapphire Ventures), Ascent Capital & IDG Ventures. Earlier, its investors were SAP Ventures & HSBC Private Equity (now Headland Capital). It primarily focuses on Business Process Management, Enterprise Content Management. It also has services for Customer communications management, Document Management Systems and Workflow and Process Automation. According to industry analyst firm Forrester Research, Newgen is a strong performer in ECM space. Newgen has been featured in Ovum Decision Matrix, 2011. Its BPM/ECM suite includes OmniScan, OmniDocs, OmniFlow and iBPS.

Source – Wikipedia

Media Partner

nature INDIA

Nature India is a one-stop site for information on Indian science. The website, serving the scientific community of the world's largest democracy, provides information on jobs, events, the best research and science news from India. Through in-depth features and commentaries, leading members of the scientific community, scientists and journalists reflect on contemporary issues affecting Indian science. It also provides free access to some handpicked premium content from various Nature Research journals.

Source – natureasia.com

Nature India played an important role in promoting ICAN2017

Computer Society of India – Student Chapter

IEEE – Student Chapter

IETE – Student Chapter

Chitkara University has Student Chapters of CSI, IEEE, & IETE. These technical societies/bodies helped in spreading visibility of ICAN2017 in their respective student chapters in all institutions across India.

ICAN2017 Dashboard

- ICAN2017 was the maiden edition of international conference on Computing, Analytics & Networks
- Organized in succession of successfully conducted National symposium on Computing, Analytics & Networks - NCAN 2017 on April 15, 2017. NCAN2017 provided budding researchers an opportunity to present their work and obtain feedback from experts there by prepare themselves for the international conference
- Technical Program Committee of ICAN2017 comprised of leading researchers of 5 different countries
- We had a team of about 50 reviewers including 20 reviewers from outside India
- Each paper was scrutinized and critically reviewed by at least 3 reviewers
- The acceptance rate of ICAN2017 was less than 30%
- ICAN2017 was organized on October 27-28, 2017 at Chitkara University, Punjab, India
- 16 Paper Presentations in three parallel tracks i.e. Computing, Analytics & Networks
- 4 Keynote Talks
- 1 Hands-on Tutorial
- 100 delegates comprising of students, research scholars, academicians & industry professionals from 5 different countries participated
- Springer to publish post conference proceedings of ICAN2017 in Springer CCIS Series

Key People

General Chair

Dr. Sumeet Dua
Professor of Computer Science and Cyber Engineering, College of Engineering and Science, Louisiana Tech University, USA

Associate Chair

Dr. Archana Mantri
Pro Vice Chancellor, CURIN, Chitkara University, India

Associate Chair

Dr. Rajnish Sharma
Dean (Research), Chitkara University, India

Convener

Mr. Sagar Juneja
Associate Professor, ECE Chitkara University, India

Springer Representative

Ms. Suvira Srivastav
Associate Editorial Director, Springer New Delhi

ICAN2017 Committees

Technical Program Committee

Name & Organization	Name & Organization
Ana Hol | University of Western Sydney, Australia	T Nandha Kumar | University of Nottingham Malaysia Campus
Jin Ding | Zhejiang University of Science and Technology, China	TSB Sudarshan | Amrita University, Bangalore
Ojaswa Sharma | IIIT Delhi, New Delhi	Yanhui Guo | University of Illinois, Springfield

Advisory Committee

Name & Organization	Name & Organization
Ana Hol | University of Western Sydney, Australia	Prakash H Patil | Vice Chairman, IETE, Pune Center
Antti Piironen | Metropolia University of Applied Sciences, Finland	PSV Nataraj | IIT Bombay, India
Igor Popov | ITMO University, Russia	Sadanand Gulwadi | ARM, UK
B Neelima | NMAM Institute of Technology, Karnataka, India	Sonia Hamnane | Digital Strategy Consultant, France
James Mc Cartney | British Columbia Institute of Technology, Canada	T Nandha Kumar | University of Nottingham Malaysia Campus
Jin Ding | Zhejiang University of Science & Technology, China	TSB Sudarshan | Amrita University, Bangalore
Manisha | Infosys, India	Varun Goswami | Associate Vice President, NewGen Software Technologies Ltd.
Manish Bali | COO, RSC India & South East Asia	Yanhui Guo | University of Illinois, Springfield
Ojaswa Sharma | IIIT Delhi, New Delhi	

Members

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Heinz-Josef Eikerling | Hochschule Osnabrueck, Germany	Sujata Pandey | Amity University Uttar Pradesh, India
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Manoj Gulati | IIIT Delhi, India	Saurabh Sharma | GGCT, Jabalpur, India
Lakshmanan Nataraj | Mayachitra Inc., United States	Rajinder Sandhu | Chitkara University, India
Phan-Anh-Huy Nguyen | HCMUTE, Vietnam	Tamanna Sehgal | SAITM, Gurgaon, India
Manjit Sandhu | GNDU,Amritsar, India	Atul Sharma | VastEdge, India
A.K. Sharma | ICAR-NDRI, Karnal, India	Rajkumar Sharma | Vikram University, Ujjain, India
Michael Uelschen | University of Applied Sciences Osnabrueck, Germany	Vishal Sharma | SBSSTC, Ferozepur, India
M Vigilson Prem | Anna University, India	Mohd Maroof Siddiqui | Integral University, India
Rajagopalan S | Alagappa University, India	Jagmohan Singh | SBBS University, India
Sandeep Arya | GJUS&T Hisar, India	Jaiteg Singh | Chitkara University, India
Nitin Goel | CPA GLOBAL, India	Rachna Soni | DAV College, Yamunanagar, India
Ekta Gandotra | Chitkara University, India	Sonia Hamnane | Digital Strategy Consultant, France
Veena Goswami | KIIT University, India	Koteswara Rao K | GMRIT, India
Sandeep Kautish | GKU,	Ashwani Kush | KUK, India
Neha Kishore | Chitkara University, India	

ICAN2017 Theme

Computing in the most simplest of words is use of computers or computer systems. We do a lot of computing in our day to day life like – withdrawing money from ATM, swiping card to get access to secured and guarded areas, using smart phones, accessing emails, downloading stuff from the internet etc. In today's technology world, computing is like breathing.

We are generating lots and lots of data. We generate data at every single moment of our lives - while sending text messages, while sending emails, while browsing the social media, while using any health care app on our smart phones or while online shopping etc. We are creating Big Data, Huge Data or rather humongous data. In order to derive any useful information from this data or to get insight into Big Data to fetch relevant conclusion, one needs to know good data analytics techniques.

Every modern day human being is connected to the world through internet or Network. Today not only human beings but the devices are also connected to internet. Thus there is always a requirement of higher bandwidth, higher speed, and efficient network topologies to meet the ever increasing demand of high speed networks.

Theme of ICAN is carefully chosen so as to cover diverse domain areas and yet remains focused in covering key technology domains of Computer Science Engineering i.e. Computing, Analytics & Networks.

Message from the General Chair

ICAN2017 was a result of enthusiastic vision and unwavering commitment of Chitkara University and team of extra ordinary individuals that served as core committee members. We live in a data rich and information poor world. Computing, Analytics & Networks provide the back bone of knowledge that will continue to provide next generation of solution to address key challenges in this unique environment. ICAN2017 was the first edition of the conference that attempted to bring together a unique interdisciplinary group of international researchers and practitioners in the area of computing, analytics & networks. I hope all the participating delegates of ICAN2017 found the experience satisfying, fruitful and productive. I thank you for your participation in ICAN2017. Thanks are also due to Springer, all the sponsors, keynote speakers, sessions chairs, core organizing committee and the team of volunteer for their commitment in making the first edition of ICAN successful. I hope to see you all in next edition of ICAN as well.

***Dr. Sumeet Dua** - Louisiana Tech University, USA.*

Message from Associate Chair

We formulated this conference to address the key current issues in Computer Science Engineering and after much brain storming we narrowed it down to Computing, Analytics & Networks and came up with ICAN. The grand success of ICAN2017, the very first edition of the conference proved that we were quite right in selecting computing, analytics and networks as key areas for the conference. We received very good submissions from all parts of India as well as good participation from researchers from outside India. I thank all delegates for submitting their high quality research work to ICAN2017. I thank Springer to agreeing to publish the post conference proceedings of ICAN2017 and all the other collaborators – BCIT Canada, NewGen Software, Student Chapter of IETE, IEEE, and CSI. I also thank the keynote speakers, technical program committee, reviewers, local organizing team, and volunteers who have played an important role in the success of ICAN2017.

***Dr. Archana Mantri** - Chitkara University, India.*

Message from Associate Chair

I am happy to see such great participation in ICAN2017 from all over the country as well as from outside India. Researchers from five different countries participated and presented their work in ICAN2017. Within India almost all regions were well represented and this was really heartening to see especially given the fact that it was a maiden edition of the conference. I thank all the delegates for their participation in ICAN2017 and I only hope all of you have found the experience useful. The big reason for the success of ICAN2017 is Springer's association with us and their acceptance for publishing ICAN2017 proceedings in CCIS series. I would like to personally thank Ms. Suvira Srivastav from Springer for her kind support in this regard. This conference would not have been so successful without the contribution starting from Technical Program Committee, Reviewer Committee, Our collaborators – BCIT Canada, NewGen Software, & student chapter of IEEE, IETE & CSI. Last but definitely not the least local organizing team & a team of volunteer that executed the show on the days of the conference was highly commendable. I thank all of them for their tireless support.

***Dr. Rajnish Sharma -** Chitkara University, India.*

Message from Convener

ICAN2017, the very first edition of International Conference on Computing, Analytics & Networks is concluded successfully with 16 paper presentations by researchers from different parts of the world, 4 highly impactful keynote talks & 1 extremely beneficial hands-on tutorial. I thank and congratulate all the stakeholders starting from delegates, keynote speakers, committee members, to local organizing team and volunteers for the success of ICAN2017. Since ICAN2017 was the first edition of the conference there was an obvious challenging of attracting high impact research work from around the world but thanks to our collaborators who played an important role in spreading visibility of ICAN2017 in right forums, we pulled it off quite gracefully. I thank Springer, BCIT Canada, NewGen Software and Student Chapters of IEEE, IETE and CSI for their continual support.

***Mr. Sagar Juneja –** Chitkara University, India.*

Introduction

ICAN2017 was held at Chitkara University, Punjab, India on October 27-28, 2017. The conference was organized by Chitkara University with technical support from Springer, New Delhi and in association with British Columbia Institute of Technology, Canada, NewGen Software, New Delhi and Student Chapters of IEEE, IETE and CSI. Around 100 delegates from 5 different countries attended the conference that featured four Keynote Talks by renowned researchers from different parts of the world, one Hands-on Tutorial and Paper Presentations in three parallel tracks. The post-conference proceedings of ICAN2017 will be published by Springer in CCIS series.

The conference was announced in October 2016 as a two-fold event – a National Symposium on Computing, Analytics and Networks (NCAN2017) conducted on April 15, 2017 and International Conference on Computing, Analytics & Networks (ICAN2017) conducted on October 27-28, 2017. The aim of NCAN2017 was to provide budding researchers from India an opportunity to present their work and obtain feedback from experts there by prepare themselves for the international conference. In NCAN2017 only abstracts were solicited and shortlisted abstracts were given an opportunity with attractive benefits to present their work in ICAN2017. ICAN2017 was an international event where we received about 100 research papers from different parts of the world. A team of about 50 reviewers comprising of leading researchers and industry professionals from all over the world reviewed the received papers and on the basis of the reviews received 16 papers from 5 different countries were shortlisted for oral presentation during ICAN2017.

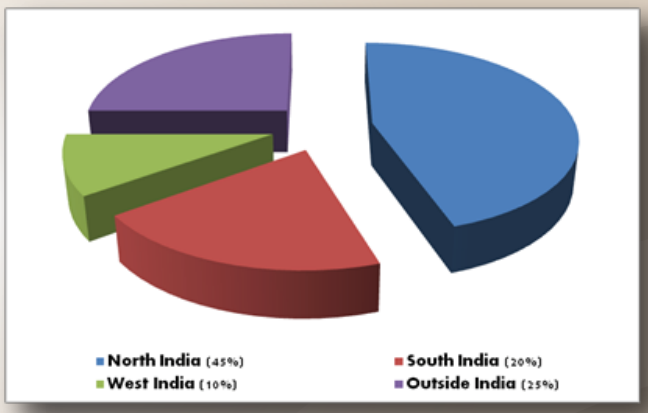
Message from BCIT

"BCIT is very pleased to be an academic partner for ICAN2017. I should mention that BCIT and Chitkara University have had very positive partnerships for number of years now. I myself have visited your lovely campuses and I only wish I could be there for ICAN2017 as well. Bringing together academicians and educators from various countries help us broaden and develop our knowledge and in-fact it act as a catalyst for deeper learning. I hope ICAN2017 set the stage for the even stronger collaborations between all the participating institutions and delegates from different countries. The opportunities like ICAN2017 are very important, think of them like pebbles dropping in water and causing ripples that spread around. These ripples represent potential. I hope your ideas will also cause ripples that go beyond the ICAN2017 and continue to grow & take shape into something bigger." - ***Michael Galli – Manager, International Recruitment and Admissions, BCIT, Canada***

ICAN2017 Delegates Distribution Plots

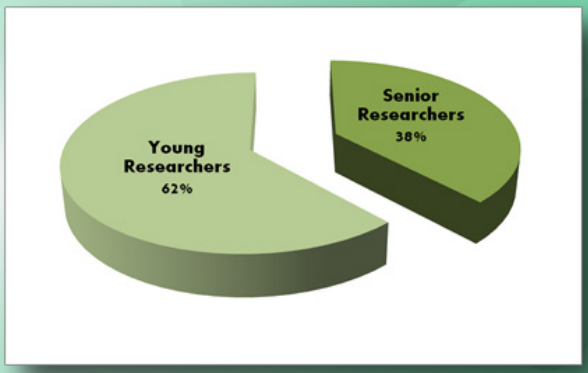
Geographical Distribution

Here is a geographical distribution of delegates participated in ICAN2017. ICAN2017 attracted good participation from all over the country and from outside the country as well.



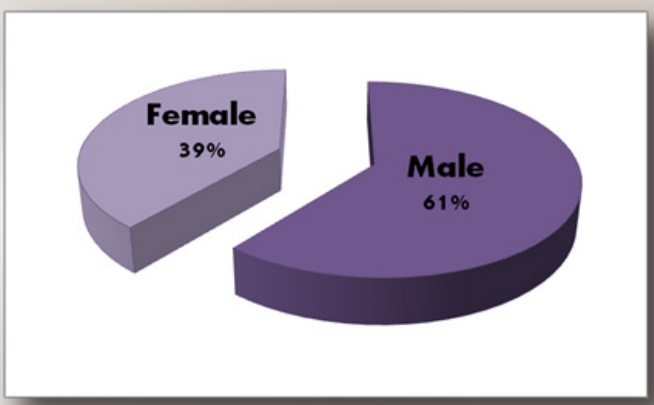
Participation from Senior and Young Researchers Alike

Conferences like ICAN2017 provide ideal networking platform for researchers of different levels of seniorities. Most importantly it offers a platform where young researchers learn a great deal about the research & research trends and get right direction by interacting with the senior researchers. 38% of all delegates who participated in ICAN 2017 were senior and renowned researchers in their respective domains and 62% were the budding or young researchers.



Gender Diversity in ICAN2017

ICAN2017 witnessed decent or fair participation from both male and female researchers. While 39% female delegates participated in ICAN2017, male participation was 61%.



Inaugural Ceremony & Keynote Talks

The inaugural ceremony of ICAN2017 was kick-started with a Welcome Address delivered by Mr. Sagar Juneja, the Convener of ICAN2017. He welcomed all the delegates, keynote speakers, session chairs, representatives from the collaborators of ICAN2017, guests, ICAN2017 chairs of various committees and committee members to the inaugural ceremony. In his Welcome Address he also shed some light on the vision & objective behind this conference with an emphasis on theme areas of ICAN2017. He also shared with the audience the exciting journey of the first edition of this conference ICAN2017 and how the core committee of ICAN2017 with the extensive support from our collaborators especially Springer worked tirelessly to make this maiden edition successful.

Welcome Address by Mr. Sagar Juneja

Mr. Sagar then invited Ms. Suvira Srivastava, Associate Editorial Director, Springer New Delhi to address the audience. Ms. Suvira briefly talked about Springer and Chitkara University association for ICAN2017 and congratulated the organizing committee for putting together such a wonderful conference. In her brief address she talked about Springer History and how Springer is helping the researchers all over the world for quality publications. She then talked about how to identify right journals and conferences for your work to make significant impact and contribution to the community and technology through your research. She also touched upon book publication and how to identify right publisher for your publication during her talk on Efficient Publishing Strategy.

Prof. Sumit Dua, General Chair, ICAN2017 and Mr. Michael Galli from BCIT, Canada also addressed the delegates through their video messages. While Prof. Dua shared his view point on choosing the theme of the conference, Mr. Galli talked about strong partnership which Chitkara University and BCIT have built over the years. Joint conduct of ICAN2017 by both the universities has further helped in strengthening this association.

Dr. Rajnish Sharma – Associate Chair, ICAN2017 welcoming Ms. Suvira Srivastav from Springer

Meet Ms. Suvira

Suvira Srivastav is Associate Editorial Director, Computer Science and Publishing Development in Springer Nature group. She is part of Springer's global Editorial Management team managing Computer Science portfolio of the Company and is also responsible for establishing Biomedicine program in the country. At Springer, Suvira has been instrumental in establishing major publishing partnerships that have benefitted Indian researchers and different publishing units of the company. Author of two books, a knowledge management expert, an avid writer and a former columnist of leading dailies of India, she brings with her the experience of establishing knowledge networks and programs in the South Asian countries.

Ms. Suvira Srivastav during ICAN2017

"This is my first visit to Chitkara University and I am sure that this will not be the last. The kind of association we are trying to have with Chitkara University and the endeavour they have of disseminating research far and wide is what Springer stand with Chitkara University for. And this is the reason we are publishing proceedings of ICAN2017." - ***Suvira Srivastav***

Two keynote addresses were delivered during the inaugural function. The first Keynote was delivered by Dr. Pao-Ann Hsiung- Dean, International Affairs, National Chung Cheng University, Taiwan. His talk entitled 'Model Predictive Optimization for Energy Storage-based Smart Grids'. In recent years, energy storage systems (ESS) in a smart grid has started to act as an active electricity supplier so as to minimize overall electricity costs in a smart grid. However, the ESS lifetime decrease with each charging/discharging. In this talk Dr. Pao discussed a Model Predictive Optimization (MPO) method for distribution management in multiple micro-grids for a global scheduling with tradeoff between electricity trading and ESS loss of life (LoL) within a smart grid. In his MPO method he explained, future energy states are predicted using an Autoregressive Integrated Moving Average (ARIMA) model. According to the prediction results, a near-optimal energy storage system (ESS) usage is found through the Genetic Algorithm (GA).

"This is my first visit to Chandigarh & Chitkara University and I feel very much at home. ICAN2017 is I believe a very big success." – ***Dr. Pao***

Dr. Pao-Ann Hsiung delivering his keynote address during ICAN2017

Meet Dr. Pao

Dr. Pao-Ann Hsiung is Dean, International Affairs, National Chung Cheng University, Taiwan. He obtained his Ph.D. in Electrical Engineering from the National Taiwan University in 1996 and till 2000 worked as post-doctoral researcher at the Institute of Information Science, Taiwan. He has published more than 160 papers in international journals and conferences. His main research interests include reconfigurable computing and system design, multi-core programming, cognitive radio architecture, System-on-Chip (SoC) design and verification, embedded software synthesis and verification, real-time system design and verification, hardware-software codesign and coverification, and component-based object-oriented application frameworks for real-time embedded systems.

Dr. Archana Mantri – Associate Chair, ICAN2017 and Dr. S.N. Panda felicitating Dr. Pao

The second & final keynote of Day 1 was delivered by Dr. Adesh Kumar Sharma - Principal Scientist (Computer Applications), ICAR – NDRI, Karnal. His talk entitled 'Intelligent Modelling of Moisture Sorption Isotherms in Milk Protein-Rich Extruded Snacks Prepared from Composite Flour'. He discussed connectionist models to predict adsorption isotherms of milk protein-rich extruded snacks prepared from composite flour, at different temperatures (i.e., 28, 37 and 45°C) and water activities (i.e., in the range:0.112-0.971).

Dr. A. K. Sharma delivering his keynote talk

Meet Dr. A.K. Sharma

Dr. Adesh Kumar Sharma is Principal Scientist, Computer Applications, ICAR – NDRI, Karnal. He did his PhD in Computer Science from Thapar University, Patiala. His research interests include Nature-inspired Computing, Machine Learning, Soft Computing and Statistical Computing Models; Intelligent Systems; Decision Support and Expert Systems; Database Management; Scientific Programming; e-learning; and ERP & Information Systems with applications to Dairy & Animal Sciences.

Dr. A.K. Sharma being felicitated after his talk

Day 2 of the conference was even more action packed with 2 more keynote addresses, 1 hands-on tutorial and 2 parallel tracks of paper presentations. The Keynote Speakers joined us for Day 2 were Dr. Vijay Mago - Department of Computer Science, Lakehead University, Canada and Dr. Joseph Spring - School of Computer Science, University of Hertfordshire, UK. In the first keynote address of the day Dr. Vijay joined us live from Canada and delivered his keynote address over Skype. His talk was entitled 'Using Open Clinical Data to Create an Embeddable Prediction System For Hospital Stay'. He emphasized that the global prevalence of diabetes has risen from 4.7% in 1980 to 8.5% in 2014 and continues to rise placing an increased demand on hospital resources. The management of diabetic patients within hospital can be assisted by the accurate prediction of length of stay (LOS) of patients. He discussed about a tree augmented naïve Bayesian networks (BN) classifier developed by him and his team of researchers to accurately predict patient LOS in hospital.

Dr. Vijay Mago live from Canada

Meet Dr. Vijay

Dr. Vijay Mago is associated with Department of Computer Science, Lakehead University, Canada. He works in the areas of Health Informatics, Medical Decision Making and Mathematical & Computational Modelling.

"I was pleasantly surprised with how the organizers of the ICAN conference managed my keynote address. As I live in Thunder Bay, ON, Canada, and was in the midst of a very hectic term, I requested the organizers to arrange my address through video conferencing. They were prompt and positive towards my proposal, and I thoroughly enjoyed my talk. I congratulate the organizers for arranging such an impactful conference and wish them success in their future endeavors of promoting computer science among students." - ***Dr. Vijay Mago***

Dr. Joseph Spring delivered the final Keynote Address of ICAN2017. His talk was entitled 'Quantum Communication - Analysing Fundamental Building Blocks for Quantum based Communication'. Research in quantum distributed systems and networks are developing the potential for applications in, for example, satellite communication, event ordering, secure communication, computation and the development of utilities as a quantum based resource. His talk featured the underlying concepts employed in the development of quantum networks and distributed systems.

Dr. Joseph Spring during his Keynote Talk

Meet Dr. Spring

Dr. Spring's research interests include Quantum and Classical Information & Computation, Geometry, Information Geometry and Stochastic Processes, Stochastic Calculus, Computational Mathematics, Physics and Earth Sciences, Intrusion Prevention & Detection, Cyber-warfare, Internet of Things, Anonymity, Cryptography & Cryptanalysis.

Dr. Spring interacting with the delegates

Tutorial Session

ICAN2017 featured a three hour hands-on tutorial on Meta-Heuristic and Hyper-Hyper-Heuristic Applications for Search based Software Engineering Problems. The tutorial was conducted on Day 2 of the conference and about 40 delegates attended it. Dr. Kamal Z Zamli - Professor, CSE, Universiti Malaysia Pahang, Malaysia was the resource person of the tutorial session. Dr. Kamal works in the area of Software Testing and Automation, Process Modelling as well as Algorithm and Data Structures. He holds several research grants related to Software Testing both from the government and the industry. He did his PhD in Software Engineering from University of Newcastle in 2003.

Dr. Kamal Z Zamli during his tutorial session

This tutorial covered the applications of meta-heuristic and hyper-heuristic for solving the search based software engineering problems. Firstly, it highlighted the differences between meta-heuristic and hyper-heuristic through solving a simple optimization problem. Then, the tutorial illustrated how to solve two search based software engineering problems: the t-way test suite generation problem; and the test redundancy reduction problem. Specifically, two types of meta-heuristic (and hyper-heuristic) approaches were elaborated including trajectory based and population based with specific applications to search based software engineering problems. Hands-on exercises were also conducted to strengthen the given concepts.

Dr. Kamal Z. Zamli delivering his tutorial

"I would like to extend my thanks to the organizing committee of ICAN2017 for holding such a wonderful event. The conference was an eye opener to many state-of-the-arts research done by prominent researchers from all over the globe. Having ICAN2017 back to back with the Global Week also helps to foster collaboration not only with Chitkara University but also with other researchers from all over Asia and Europe. I am glad to be part of these events and would not hesitate to come again. Bravo Chitkara University!" - ***Dr. Kamal Z. Zamli***

Paper Presentations

ICAN2017 featured paper presentations in three tracks. On Day 1 i.e. October 27 all papers of Computing track were presented in a session that lasted 90 minutes. On Day 2 (October 28) paper presentations were carried out in two parallel tracks – Analytics & Networks. In each track 'Best Paper Award' was declared and awarded a certificate of achievement and a memento.

Track 1 - Computing

The track was chaired by Dr. Pao-Ann Hsiung - National Chung Cheng University, Taiwan, Dr. Igor Popov - ITMO University, Russia, Dr.-Ing. Klaus-Dieter Rupp - DHBW -Heidenheim, Germany, Dr. A.K. Sharma - ICAR - NDRI, Karnal, India.

Session Chairs of Computing Track L-to-R Dr. Pao, Dr. Popov, Dr. A.K. Sharma, Dr. Klaus

Following were the papers presented in Computing Track

A Co-Design Methodology To Design And Develop Serious Educational Games: Integrating The Actors And Challenges In Each Phase - Neha Tuli & Archana Mantri, Chitkara University, Punjab	Enhancing Levenshtein's Edit Distance Algorithm For Evaluating Document Similarity - Shama Rani and Jaiteg Singh, Chitkara University, Punjab
Smart Toll Collection using Automatic License Plate Recognition Techniques - S. Mahalakshmi , B.M.S. Institute Of Technology, Bangalore and R.Sendhil Kumar, VIT University, Tamil Nadu, India	VLSI Floorplanning using Entropy Based Intelligent Genetic Algorithm - Amarbir Singh, I. K. Gujral PTU, Punjab, India and Leena Jain - Global Institute of Management and Emerging Technologies, Punjab, India
Performance Evaluation Of De-Noising Techniques using Full-Reference Image Quality Metrics - Palwinder Singh, I. K. Gujral Punjab Technical University, Punjab, India and Leena Jain, Global Institute of Management and Emerging Technologies, Punjab, India	Using Open Clinical Data to Create an Embeddable Prediction System For Hospital Stay - Dillon Small , Fahad Wali, Christopher M. Gibb, and Vijay Mago, Lakehead University, Canada

The paper entitled 'Performance Evaluation of De-Noising Techniques using Full-Reference Image Quality Metrics' presented by Palwinder Singh from Guru Nanak Dev University, Amritsar was awarded Best Paper Award in Computing Track.

Mr. Palwinder Singh being awarded Best Paper Award by the Session Chairs

Track 2 - Analytics

The track was chaired by Dr. Rajinder Sandhu – Chitkara University, Punjab and Dr. Kamal Z Zamli - Universiti Malaysia Pahang, Malaysia.

Session Chairs Dr. Rajinder Sandhu and Dr. Kamal Z. Zamli

Following were the papers presented in Analytics Track

Harnessing Supremacy Of Big Data In Retail Sector Via Hadoop - Amarjeet Cheema, Punjabi University, Patiala	Gini Coefficient Based Wealth Distribution In The Bitcoin Network: A Case Study - Manas Gupta, National University, Singapore and Parth Gupta, Chitkara University, Punjab, India
AI Based Healthcare Platform For Real Time, Predictive And Prescriptive Analytics - Jagreet Kaur, IKGPTU, Jalandhar, India and Kulwinder Singh Mann, GNDEC, Ludhiana, India	Learning Cuckoo Search Strategy For T-Way Test Suite Generation - Kamal Z. Zamli, Abdullah B Nasser, Abdul-Rahman Alsewari, Universiti Malaysia Pahang, Malaysia
Connected Cluster Based Node Reduction And Traversing For The Shortest Path On Digital Map - Dhaval Kadia, Maharaja Sayajirao University Of Baroda, Vadodara	Intelligent Modelling of Moisture Sorption Isotherms in Milk Protein-Rich Extruded Snacks Prepared from Composite Flour - A.K. Sharma, N.R. Panjagari, and A.K. Singh, ICAR-NDRI, Haryana, India

The paper entitled 'Connected Cluster Based Node Reduction And Traversing For The Shortest Path On Digital Map' presented by Mr. Dhaval Kadia from Maharaja Sayajirao University Of Baroda, Vadodara was declared Best Paper in Analytics Track.

Mr. Dhaval being awarded Best Paper Award in Analytics Track

Track 3 - Networks

The Networks track was chaired by Dr. S.N. Panda – Chitkara University, India, Dr. Joseph Spring - University of Hertfordshire, UK and Dr. Haider Al-Saidi, Red River College, Canada.

Track 3 Session Chairs Dr. Spring, Dr. Panda and Dr. Haider

The papers presented in Track 3 - Network were as follows

Model Predictive Optimization for Energy Storage-based Smart Grids - Tsai-Chen Yang and Pao-Ann Hsiung, National Chung Cheng University, Taiwan	Attacker Evidence System In WSN - B Srinivasa Rao, Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad and P. Premchand, Osmania University, Telangana, India
A Cipher Based Acknowledgement Approach for Securing MANETS by Mitigating Black and Gray Hole Attacks – Neha, Gurjot Kaur Walia, and Harminder Kaur, Guru Nanak Dev Engineering College, Ludhiana	Conservation Of Feature Sub-Spaces Across Rootkit Sub-Families - Prasenjit Das, Chitkara University, H.P.

The Best Paper Award in this track was given to Dr. Prasenjit Das from Chitkara University, H.P. His paper was entitled 'Conservation of Feature Sub-Spaces Across Rootkit Sub-Families'.

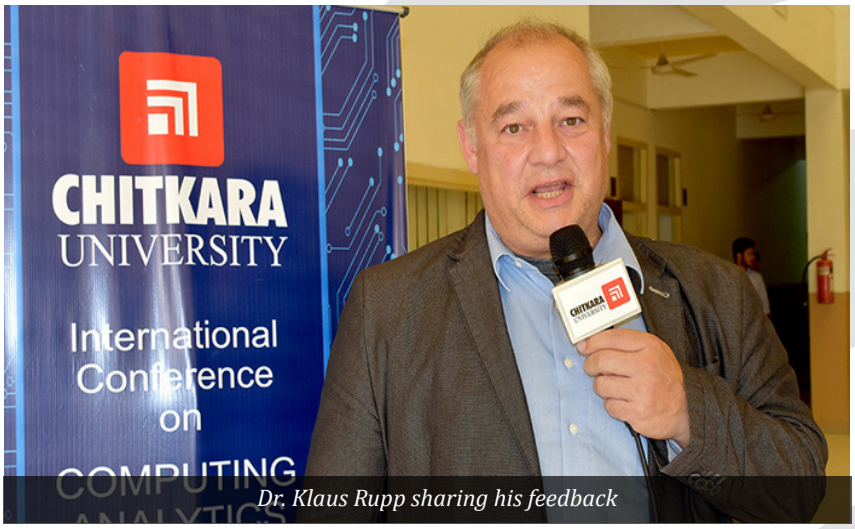
Dr. Prasenjit Das being awarded the Best Paper Award in Track 3 – Networks

Let's Hear from the Delegates

Ms. Neha Lakhanpal receiving her paper presentation certificates from the session chairs

"ICAN2017 provided a great opportunity to publish my work in Springer CCIS Series. I thank Chitkara University for the same. The hospitality of Chitkara University is great and the place is very welcoming" – Ms. Neha Lakhanpal, Guru Nanak Dev Engineering College, Ludhiana

"I participated in ICAN2017 as one of the session chairs. The keynote talks that I attended in the morning were very informative and useful for me. I got some interesting ideas that I plan to implement in my lectures." - Dr.-Ing. Klaus-Dieter Rupp - DHBW -Heidenheim, Germany



Dr. Klaus Rupp sharing his feedback

Mr. Dhaval during his presentation

"I am happy that my paper is accepted in ICAN2017 and will be published in Springer CCIS series. I am attending ICAN2017 with an objective of listening to great keynote talks and for networking with the fellow researchers." – Mr. Dhaval Kadia, Maharaja Sayajirao University Of Baroda, Vadodara

UPCOMING CONFERENCES

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More Details will be available soon!