



# 1<sup>st</sup> International Conference on Advances in Computational Intelligence and Informatics



(December 20<sup>th</sup> – 21<sup>st</sup> 2019)

**Anurag Group of Institutions, Hyderabad, India**

## **Keynote Speakers, Plenary Speaker & Resource Persons:**

### **Keynote Speakers**

Dr. Salvatore Distefano, University of Messina, Italy

Mr. Aninda Bose, Springer, India

Dr. Claire Komives, San Jose State University, USA

Dr. Damaraju Pavan Kumar, Tata Consultancy Services, Hyderabad, India

Mr. BSR Prasad, Software Consultant, Hyderabad, India

### **Plenary Speaker**

Mr. Samir Goswami, Director (MIS) & Advisor Centre for Information & Communication Technology, NIRD-PR, Hyderabad

### **Resource Persons**

Prof. C. Jaya Lakshmi, Professor, University College of Science, Osmania University, Hyderabad

Dr. A.V. Krishna Prasad, MVSR Engineering College, Hyderabad

Mr. Venkat Aravind, Technical Head, Ramdisk, Hyderabad

Mr. C. Yuktesh, Developer Advocate, IBM India Pvt. Ltd. Hyderabad

Ms. Pradeepthi Duggaraju, Smart Bridge Educational Services Pvt. Ltd. Hyderabad

Dr. M.S.L.B. Subramanyam, Srikari Imetus Solutions Pvt. Ltd. Hyderabad

Ms. B. Ujwala, Asst. Prof., Dept. of CSE, AGI

## **Statistics:**

Number of papers received: 160

Number of papers accepted: 46

Acceptance rate: 28.75 %

## Summary:

This report presents summary of the 1<sup>st</sup> International Conference on “Advances in Computational Intelligence and Informatics”. The 1<sup>st</sup> Springer - International Conference on “Advances in Computational Intelligence and Informatics” (ICACII- 2019) took place in Hyderabad during December 20<sup>th</sup> – 21<sup>st</sup> 2019. It was organized by the Department of Computer Science & Engineering, Anurag Group of Institutions, Hyderabad, Telangana, India. The aim of ICACII - 2019 was to provide a platform for researchers, scientists, technocrats, academicians and engineers to exchange their innovative ideas and new research findings in the field of Computational Intelligence and Informatics till the end of 2019. The conference boosted excellent innovations in terms of day to day life and academics. Prospective authors were invited to submit manuscripts reporting original unpublished research and recent developments in the topics related to the field of Computational Intelligence and Informatics. All the submitted papers were reviewed by Technical Reviewer Committee. All accepted & registered high-quality papers were submitted to Springer “Lecture Notes in Networks and Systems” indexed in ISI Proceedings, SCOPUS, Google Scholar and Springerlink for publication.

As part of conference, Pre-conference workshops were organized for the benefit of students, research scholars and faculties on 19<sup>th</sup> December 2019. More than 300 participants have registered in FIVE hands on workshops: Data Analytics and Visualization, Computer Vision, Blockchain Technology, Internet of Things and Machine Learning.

Total 46 authors have attended the conference that included research scholars and faculties from different parts of India and across the world.

We received 160 research papers across India and from Abroad the countries like United States, South Korea, Malaysia, Bangladesh, South Africa, Oman, Nigeria and many other countries.

## **Preconference Workshops: (19/12/19)**

Five parallel hands on workshop were organized in the areas: Data Analytics and Visualization, Security through Blockchain Technology, Computer Vision, Internet of Things and Machine Learning Using Python in IBM Cloud.

### **Data Analytics and Visualization:**

This Pre-Conference Workshop provided a stimulating and practical learning environment for all the students wishing to improve their understanding of, and gain practice in, working with data analytics. This workshop aimed at understanding the descriptive statistics of Data Analysis and also to get introduced to R along with data exploration to R. Morning session was addressed by Prof. C. Jayalakshmi, OU, Hyderabad covering the basic statistical principles. Afternoon session was handled by Dr. A. V. Krishna Prasad, MVSR, Hyderabad and introduced participants to the basic concepts of open-source statistical package R. At the end of workshop, participants were assessed and graded by their performance. Mr. A. Bala Krishna, II B.Tech CSE -D stood first among 60 participants.

### **Security through Block chain Technology:**

This pre-conference workshop organized by Security research wing members, aims at understanding the structure and features of Blockchain Technology. Mr. Venkat Arvind, Technical Head, Ramdisk had given exposure on cryptography used in Blockchain and Dapps stack. Participants got hands-on experience on REMIX, ETHEREUM WALLET, SOLIDITY PROGRAMMING, and SHA-256. A total of 60 Participants registered for this workshop on from 10:00 AM to 4:00 PM at Computer Lab 2, Block - A. At the end of the session students were made to participate in quiz competition to check their capability of understanding the concepts. Ms. Divya from II yr. CSE was the best performer. Finally session was closed with the participants' feedback and felicitation to the resource person.

### **Computer Vision:**

The primary objective of this preconference is to deal with how computers can be made to gain high-level understanding from digital images or videos. Dr. MSLB Subramanyam, Head-Imaging and Algorithm Practices, Srikari Impetus solutions Pvt Ltd Hyderabad provided exposure in the field of computer vision, contents for Image Generation, classification techniques. Content Based Image Retrieval and a Hands-on session to create animated videos using "Powtoons" was handled by Ms. Ujwala Bhoga, Asst. Prof, Computer Science and Engineering, Anurag Group of Institutions, Hyderabad. This hands-on session provided various insights to the amateurs. Later, the Hands-on session commenced with the generation of animations using professional tool namely Powtoons. Students participated in quiz competition to analyze their capability of understanding concepts, in which Mr Sanjay Kumar, III – CSE – C, was the best performer. Finally the session ended with the felicitation of the resource persons.

### **Internet of Things:**

This workshop aims at understanding the structure and features of IoT, configuration of Arduino and Node MCU. Ms. Pradeepthi Duggaraju, AI Developer, Smartbridge Educational Services Private Limited, Hyderabad had given exposure on how to use the Thinkspeak Cloud. The hands-on session provided insights on usage of IoT devices and their usage. Students were also asked to participate in quiz competition to check their capability of understanding in concepts. Mr. G. Jaswant, II – CSE – B, was the best performer. At the end, students have given their feedback which

says the workshop is outstanding. And finally session ended with the felicitation of resource person.

### **Machine Learning Using Python in IBM Cloud:**

This pre-conference workshop was organized by Machine Learning Research Wing members. Mr. C. Yuktesh, Developer Ecosystem Group, IBM India Pvt. Ltd. had given hands on exposure on various Machine Learning Libraries, usage and implementation using Python as a programming Language in IBM Cloud. Total of 60 Participants registered for this workshop on 19<sup>th</sup> December 2019 from 10:00 AM to 4:00 PM at Computer Lab 3, Block - A. A quiz on the course content is conducted at the end of the Workshop to assess the student capabilities on Machine Learning. Ms. Poojasmi is the best Performer of the quiz and awarded during the ICACII 2019 Valedictory Function.



**Photograph 1 – Pre-conference workshops on 19/12/2019 from 10:00 am to 4:00 pm**



## **Inaugural Function:**

The inauguration of the event has begun by lamp lightening followed by prayer song that marked the opening of the conference. The Chief patrons Dr. P. Rajeshwar Reddy, Chairman - AGI, Ms. S. Neelima, Secretary & Correspondent of AGI, Patrons Dr. K. S. Rao, Director - AGI, Prof M. Mutha Reddy Dean Examinations, AGI, General Chair Dr. V Vijaya Kumar, Dean CSE & IT, Program Chair Dr. G. Vishnu Murthy, Dy. Director & Head – CSE, AGI, Convenor, Dr. Sandeep Singh Rawat, Professor, Dept. of CSE, AGI, Guest Of Honor, Dr. C. R. Rao, Dean - School of Mathematics & Statistics, University of Hyderabad, Guest Of Honor Dr. Salvatore Distefano, Associate Professor, University of Messina, Italy, Guest Of Honor Mr. Aninda Bose, Senior Publishing Editor Springer and Chief Guest Dr. A Goverdhan, Rector - JNTUH, attended the inaugural ceremony by welcoming delegates and participants. All the dignitaries emphasized that this conference is the perfect forum for researchers to network, collaborate and meet world renowned experts to learn, share and solve problems through discussion.

Dr. Sandeep Singh Rawat, Convenor had given the detailed reports on number of papers received, review process and number of papers accepted for the presentation. He mentioned that out of 160 papers only 46 papers were selected after strict plagiarism check and expert opinions by the reviewers.

Dr. K. S. Rao, Patron and Director AGI, highlighted the purpose of the conference and the possible ways of learning the new things which leads to research innovations, and he said that this conference plays an immense role for researchers to share their ideas and further extend the ideas in to innovations.

Dr. P. Rajeshwar Reddy, Chief Patrons & Chairman – AGI emphasized that the conference is the perfect forum for researchers to network, collaborate and meet world renowned experts to learn, share and solve problems through discussion.

Dr. C. R. Rao, Guest of Honor, University of Hyderabad, Hyderabad, explained the importance of research in the areas of computational intelligence and the role of mathematics in the computational intelligence.

Mr. Aninda Bose, Guest of Honor, Springer India had explained the Importance of Ethics in Research Publishing. His suggestions for paper writing ethics were well received by the entire participants.

Dr. A. Govardhan, Chief Guest & Rector - JNTUH in his inaugural congratulated the initiative taken by AGI in arranging this conference. He said this type of conference shall enable the participants enhance their knowledge.

Ms. Neelima, Chief Patron & Secretary, AGI, & Dr. Mutha Reddy, Patron & Dean – Examination, AGI welcomed the delegates and participants.

Dr. Salvatore Distefano, Guest of Honor, University of Massina, Italy, addressed the participants that this conference will be one of the most relevant events in the area of intelligent computing, fostering and conveying interactions among leading researchers from all over the world.

Dr. V Vijaya Kumar, General Chair & Dean CSE & IT has addressed the delegates and participants that this conference will provide the requisite tools and knowledge, to overcome significant problems

appearing in our industry and society, by identifying innovative ideas and technologies introduced by the researchers and students.

Dr. G. Vishnu Murthy, Program Chair & Dy. Director, AGI address the participants that this conference will help in identification and promotion of R&D activities at the individual as well as at the institutional level, keeping in pace with the international standards.



Photograph 2 - Inauguration Day (20/12/19)

## **Keynote Sessions:**

### **1<sup>st</sup> Day (20/12/19):**

#### **Keynote Session 1: Smart Intelligent and Programmable Cities**

**Speaker: Dr. Salvatore Distefano**

Dr. Salvatore Distefano is an Associate Professor at University of Messina, Italy, and Fellow Professor at Kazan Federal University, Russia, head of the Social and Urban Computing Group and of the Cisco Innovation Center in Kazan. He was formerly an Assistant Professor at Politecnico di Milano (2011-2015). In 2001 he got the master degree in Computer Engineering from University of Catania, and then, in 2006, he received the Ph.D degree on Computer Science and Engineering from University of Messina.

#### **Keynote Session 2 : Importance of Ethics in Research Publishing**

**Speaker : Mr. Aninda Bose**

Aninda Bose is presently working as a Senior Publishing Editor with Springer Nature. Mr. Bose is part of the Global Acquisition Team at Springer Nature and responsible for acquisition of scientific content across the globe. He is responsible for acquisition of content in Interdisciplinary Applied Sciences. He has more than 25 years of industrial experience in marketing and different fields of publishing. Mr. Bose has completed Masters in Organic Chemistry from Delhi University and Masters in Marketing Research from Symbiosis Institute of Management Studies, Pune. Mr. Bose has delivered more than 110 invited talks on Scientific Writing and Publishing Ethics in reputed Universities, International Conferences and Author Workshops. He has published books for secondary level in Chemistry and is a member of American Chemical Society, USA.





**Photograph 3 – Keynote sessions by Dr. Salvatore Distefano, University of Messina, Italy and Mr. Aninda Bose, Springer, India on 20/12/19**



## Technical Sessions – 20/12/2019

### Track 1: Image Processing & Intelligent Systems

Venue: Seminar Hall (329) - A Block

Session Chairs: Dr. Salman Abdul Moiz, University of Hyderabad & Dr. Raghva M., CVRCE, Hyderabad

Co-Chair: Dr. Tilottama Goswami, AGI

Session Manager: Ms. S. Deepika, AGI

### Track 2: Cyber & Network Security

Venue: Auditorium – E Block

Session Chairs: Dr. K. P. Supreethi – JNTUH & Dr. Krishna Prasad – MVSR, Hyderabad.

Co-Chair : Ms. M. Sridevi, AGI

Session Manager: Ms. P. Vinayasree, AGI

### Track 3: Data Mining & Cloud Computing

Venue: Seminar Hall(106) – D Block

Session Chair: Dr. Sasi Kiran J. – Lords Institute of Engineering and Technology, Hyderabad

Co-Chair : Dr. A. Mallikarjuna Reddy, AGI

Session Manager: Mr. Hari Prasad, AGI



Photograph 4 – Technical Sessions (20/12/19)

## Poster Presentation - 20/12/2019 & 21/12/2019

Venue: Room No. 104, E Block

Session Chair: Session Chair: Dr. Vishnu Vardhan, JNTU Jagtial.

Session Managers: Ms. K. Sailaja & Mr. Jayender Kumar

Depending on the level of research content in the submitted papers, the reviewers had recommended 12 papers to be considered for Poster Presentation. This facility was given to the researchers in order to get exposed, improve and enhance their research skills. Three BEST POSTERs were awarded based on the recommendation of Poster presentation evaluation committee based on parameters such as significance of work, presentation of poster, team effort, and application in real world scenario. Mr. Sai Krishna, IV B.Tech, AGI got the 1<sup>st</sup> Best Poster award for the Poster titled “Detection and Conversion of Text to Speech from Natural Scenic Image”, Ms. Bindu Bhargavi Nandigam, IV B.Tech, AGI got 2<sup>nd</sup> Best Poster award for the Poster titled “Channel of Distribution and Marketing” and Ms. V K Anishaa Raj, IV B.Tech received 3<sup>rd</sup> Best Poster award for the Poster titled “Analyzing student's performance using Data Mining”. Each Poster Participants provided Poster Presentation & Participation certificate.



**Photograph 5 – Winners of Best Poster Presentation receiving certificates from Chief Guest Dr. V. Kamakshi Prasad**

## Cultural Program: 20/12/2019

The cultural programmes performed by students at the end of day 1 of ICACII 2019 highlighted the Telangana culture and art forms brought festive atmosphere.



Photograph 6 – Cultural Program on 20/12/2019



## **Keynote Sessions: 2<sup>nd</sup> Day (21/12/19)**

**Keynote Session 3:** New Technologies and Ethics related to Computer Applications and Associated Ethical Considerations.

**Speaker:** Dr. Claire Komives

Dr. Claire Komives is a Professor at San Jose State University (SJSU). Presently she is a Fullbright-Nehru Senior Scholar at Thadomal Shahani Engineering College, Mumbai. She is working on Indian engineering faculty for improved teaching and learning. She has more than 20 publications and two patents to her name, has received over \$750K in grants since joining SJSU. Dr. Claire has won many awards including Van Lanen Award for Service (ACS Biochemical Technology Division; 2013), Noonan Award for Excellence in Teaching (2009) and BIOT Tank Award (both People's choice and judges awards) 255th ACS National Meeting 2018 New Orleans.

**Keynote Session 4:** Machine Consciousness.

**Speaker:** Mr. B.S.R. Prasad

Mr. BSR Prasad graduated from JNTU College of Engineering, Kakinada and Post graduation from Indian Institute of Technology, Kharagpur have a total experience of twenty two years in engineering services and real-time embedded software. Execution of Machine Learning projects in finance. Worked with various employers including DRDO, ZiLOG and Infosys.

**Keynote Session 5:** Are optimizing algorithms next buzz word?

**Speaker:** Dr. Damaraju Pavan Kumar

An accomplished professional with over 24 years of diversified experience in the areas of teaching in Statistics, Statistical data modeling and Program management. Proficient in providing solution architecture on business problems with the help of acquired experience and Industry knowledge. Keynote speaker in various national and international conferences on Analytics in Big Data. Having experience in data modeling from initialization to data Triangulation, cleansing and Statistical modeling. Associated with premium organization both in educational domain like Osmania University and in IT services companies viz., TCS (current), Infosys and Wipro along with other Quality programs at corporate level.

**Plenary Session:** Digital India: The way forward

**Speaker:** Mr. Samir Goswami

Shri Samir Goswami is working as Director (MIS) for DDU-GKY, one of the flagship skilling programs of Govt. of India under the Ministry of Rural Development. He is also heading Centre for Information and Communication Technology as an Advisor at NIRD-PR, Hyderabad. Shri Goswami is a B.Tech (Computer Science & Engineering) from NIT Durgapur, Masters in Computer Science from Rivier University, New Hampshire, USA. He has worked as an Adjunct Faculty for Ni – MSME, National Institute for Micro, Small and Medium Enterprises. Shri Goswami has profound experience as a software professional having overall 25 years in design & development of Engineering Applications, Financial Applications and Healthcare Applications. Experienced in implementing and confirming CMM level processes and ISO standards for software development. Shri Goswami is passionate about agile way of doing software development and has pioneered implementation of agile development practices (SCRUM Methodology).





**Photograph 7 – Keynote sessions by Dr. Claire Komives, Dr. Damaraju Pavan Kumar, Mr. B.S.R. Prasad and Plenary session by Mr. Samir Goswami on 21/12/19**

## Technical Sessions – 21/12/2019

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**Photograph 8 – Technical Sessions (21/12/19)**

## Valedictory Function

The Valedictory session was started at 3:00 pm on 21<sup>st</sup> December 2019. Prof. V. Kamakshi Prasad, Chief Guest, Professor & Director of Evaluation JNTUH, Dr. C. R. Rao, Guest of Honor, Professor and Dean, Department of Mathematics and Statistics, University of Hyderabad, Dr. Claire Komives Guest of honor, San Jose State University, USA, Dr. K. S. Rao, Director, AGI, Prof M. Mutha Reddy, Dean Examinations, AGI, Dr. G. Vishnu Murthy, Program Chair & Dy. Director, AGI, Dr. V. Vijaya Kumar, General Chair & Dean – CSE&IT and Dr. Sandeep Singh Rawat, Convener & Professor, AGI had grace the Dias.

The conference was sponsored by IDP and Gradient.



**Photograph 9 – Valedictory Functions (21/12/19)**

Dr. V. Kamakshi Prasad, Chief Guest, Directorate of Examinations, JNTUH, shared his research experiences and challenges. He emphasized the need of attending international conferences and importance of sharing ideas.

Dr. Claire Komives, Guest of Honor, San Jose State University, USA emphasized the need of



research in India especially on the problems related to sanitation, education and child welfare by using Intelligence Computing.

Dr. C. R. Rao, Guest of Honor, Dean School of Mathematics, University of Hyderabad, Hyderabad, appealed the research scholars to extend the ideas what they presented in the conference which leads to an innovation.

## OUTCOME:

All the Keynote and Plenary sessions were informative & interactive with live examples. They discussed about their contributions in the real world and how computational intelligence is applied in the new era of computer world. Authors and participants were enlightened with the most widely used advanced technologies in this domain. Finally it prove that this conference had given good platform for exchanging innovative ideas and new research findings in the field of Computational Intelligence and Informatics between the researchers and this in turn will help in better teaching skill and research activity.



**Photograph 10 – Team – ICACII 2019**



## Press/Media Coverage:

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**‘అనురాగ్’లో ‘శ్రీ కాన్సరెన్స్’**



**పాల్గొన్న విద్యార్థులు, అధ్యాపకులు**

చువీలేరు: మండలంలోని వెంకటాద్రి ఆసురాగ్ విద్యార్థులతో గురువారం ‘ఎవీఎస్ఎ-2019 శ్రీ కాన్సరెన్స్’ వర్క్ షాపును నిర్వహించారు. వర్క్ షాపులో 300 మంది విద్యార్థులు, అధ్యాపకులు, బోధనావారు, కార్యకర్తలు, కమ్యూనిటీ వర్క్ షాపులో పాల్గొన్నారు. యూసెఫ్ సాన్, డాక్టర్ వెన్ టెరెస్ (a) క్యాన్సరెన్స్ సమైక్యంగా, విద్యార్థుల సందర్భాన్ని సమర్థించారు.

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### సామాజిక-విద్యుత్ కార్యక్రమం

**విద్యుత్ సౌకర్యం**

విద్యుత్ సౌకర్యం అందరికీ ఉండాలి. ఇందుకోసం విద్యుత్ సౌకర్యం అందరికీ ఉండాలి. ఇందుకోసం విద్యుత్ సౌకర్యం అందరికీ ఉండాలి. ఇందుకోసం విద్యుత్ సౌకర్యం అందరికీ ఉండాలి.

## అవిష్కరణలకు శ్రీకాంధ్ చుట్టూడి

అవిష్కరణలకు శ్రీకాంధ్ చుట్టూడి

అవిష్కరణలకు శ్రీకాంధ్ చుట్టూడి



### సామాజిక-విద్యుత్ కార్యక్రమం

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## అవిష్కరణలకు శ్రీకాంధ్ చుట్టూడి

అవిష్కరణలకు శ్రీకాంధ్ చుట్టూడి

అవిష్కరణలకు శ్రీకాంధ్ చుట్టూడి



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**Photograph 11 – Media coverage – ICACII 2019 (a) Pre-conference Workshops, (b) Inaugural Function and (c) Valedictory Function**

More photographs of conference can be found at:

<https://drive.google.com/drive/folders/1goRPVEG7ePR6E0TgagSG5ui0fqS3eO4P?usp=sharing>