



Fourth International Conference on Computing and Network Communications (CoCoNet'20)



ACN'20

Fifth International Conference on Applied Soft computing and Communication Networks (ACN'20)

CONFERENCE PROGRAM (Virtual Event)

October 14-17, 2020, Chennai, India

Organized by



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

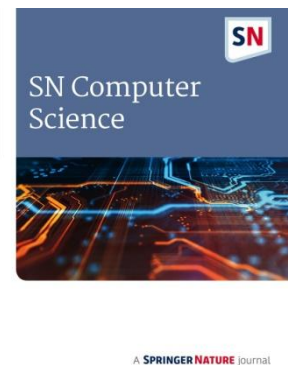
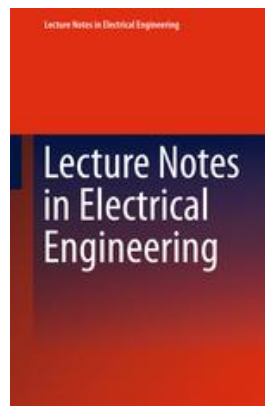
Vellore Institute of Technology (VIT), Chennai

<http://coconet-conference.org/2020/>

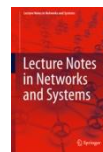
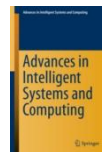
<http://www.acn-conference.org/2020/>

EDAS Program Link: <https://edas.info/p27253>

CoCoNet'20



Co-located Symposiums @ ACN'20



- Eighth International Symposium on Security in Computing and Communications (SSCC'20)
- Second Symposium on Machine Learning and Metaheuristics Algorithms, and Applications (SoMMA'20)
- Sixth International Symposium on Signal Processing and Intelligent Recognition Systems (SIRS'20)
- Sixth International Symposium on Intelligent Systems Technologies and Applications (ISTA'20)



Authors by Country (Accepted Papers)

Vietnam, USA, United Kingdom, United Arab Emirates, Tunisia, Thailand, Taiwan, Switzerland, Sri Lanka, Spain, South Africa, Singapore, Portugal, Poland, Oman, Lebanon, Italy, Israel, Ireland, Indonesia, India, Greece, Germany, France, Egypt, China, Canada, Bulgaria, Brazil, Bangladesh, Australia, Algeria.

Total number of submissions (CoCoNet& ACN): 460

Journal Special Issues

- Special issues on *Soft Computing and Intelligent Systems: Techniques and Applications*, Journal of Intelligent and Fuzzy Systems (JIFS), IOS Press, Netherlands (SCI Impact Factor: 1.851)
- Connection Science, Taylor & Francis Online (SCI Impact Factor: 1.042)
- Special issue on "*Smart Multimedia and Applications*" in Springer SN Computer Science Journal
- Special Issue on: "*Intelligent Embedded Systems*" in the International Journal of Embedded Systems, Inderscience Publishers (Indexed in Scopus, Emerging Sources Citation Index, DBLP etc...)
- Special Issue on: "*Intelligent Recognition Techniques and Applications*" in the International Journal of Computational Science and Engineering, Inderscience Publishers (Indexed in Scopus, Emerging Sources Citation Index, DBLP etc...)

Program at a Glance

October 14, 2020(Wednesday)	
9:30 - 10:30	<p>Keynote: <i>Secure and Trustworthy Machine Learning and Artificial Intelligence for Emerging Systems and Applications: The Triumph and Tribulation</i></p> <p>Speaker: Dr. Danda B. Rawat, <i>Professor, Department of Electrical Engineering & Computer Science, Howard University, Washington, DC, USA</i></p>
11:00 - 12:30	<p>Conference Inauguration</p> <p>Chief Guest: Dr. G. Satheesh Reddy, <i>Secretary, Department of Defence R&D and Chairman, DRDO</i></p> <p>Special Invitee: Dr. Shailja Vaidya Gupta, <i>Senior Adviser/ Scientist 'H', Office of the Principal Scientific Adviser to the Government of India</i></p>
13:30 - 14:20	<p>Keynote: <i>Big Data Graph Dimensionality Challenges and Solutions</i></p> <p>Speaker: Dr. Jemal H. Abawajy, <i>Professor at Faculty of Science, Engineering and Built Environment, Deakin University, Australia</i></p>
14:25 - 15:15	<p>Keynote: <i>Artificial Intelligence in Massive IoT Networks</i></p> <p>Speaker: Dr. ArumugamNallanathan, <i>Professor of Wireless Communications, IEEE Fellow, Queen Mary University of London, United Kingdom</i></p>
Parallel Technical Sessions	
15:20 - 18:15	ACN-01: International Conference on Applied Soft Computing and Communication Networks - Regular Papers
	CoCoNet-S0: Selected Papers
	CoCoNet-S1: Image and Signal Processing/Machine Learning/Pattern Recognition (Regular Papers)
	ISTA-01: Intelligent Image Processing /Artificial Vision/Speech Processing (Regular Papers)
	ISTA-02: Intelligent Techniques for Networked Systems/Security/Recommender Systems(Regular Papers)
	SIRS-01: Selected Papers (Sixth International Symposium on Signal Processing and Intelligent Recognition Systems)
	SoMMA-01: Symposium on Machine Learning and Metaheuristics Algorithms, and Applications (Regular Papers)
	SSCC-01: Selected Papers (Eighth International Symposium on Security in Computing and Communications)
15:30 - 18:00	Lightning Talks

October 15, 2020 (Thursday)	
9:30 - 10:30	Keynote: <i>Connected Autonomous Vehicles</i> Speaker: Dr. Mohammed Atiquzzaman, <i>Edith J. Kinney Gaylord Presidential Professor, University of Oklahoma, USA</i>
10:30 - 11:20	Keynote: <i>Signal Analysis for Remote Health Monitoring</i> Speaker: Dr. Sri Krishnan, <i>Professor, Department of Electrical, Computer, and Biomedical Engineering, Ryerson University, Toronto, Ontario, Canada</i>
11:20 - 12:10	Keynote: <i>3D Face Modeling</i> Speaker: Dr. Stefano Berretti, <i>Associate Professor, Department of Information Engineering, University of Florence, Italy</i>
12:10 - 13:10	Keynote: <i>Towards edge-fog-cloud continuum</i> Speaker: Dr. Marcin Paprzycki, <i>Systems Research Institute, Polish Academy of Sciences, Warsaw, Poland</i>
14:00 - 14:50	Keynote: <i>Efficient Deployment of DeepTech AI Models in Engineering Solutions</i> Speaker: Dr. Juan Manuel Corchado, <i>Director - European IoT Digital Innovation Hub, Director-BISITE Research Group, University of Salamanca & President of the Air Institute, Spain</i>
Parallel Technical Sessions	
14:50 - 17:20	CoCoNet-S3: Seventh International Symposium on Computer Vision and the Internet (VisionNet'20) - Regular and Short Papers
	CoCoNet-S4: Symposium on Natural Language Processing (NLP'20) - Regular & Short Papers
	CoCoNet-S5: Main Track - Communication and Networked Systems (Regular & Short Papers)
	ISTA-03: Intelligent Image Processing /Artificial Vision/Speech Processing(Regular Papers)
	ISTA-04: Intelligent Tools and Techniques and Applications(Regular Papers)
	SIRS-02: Regular Papers - Sixth International Symposium on Signal Processing and Intelligent Recognition Systems
	SSCC-02: Eighth International Symposium on Security in Computing and Communications - Regular & Short Papers
17:30 - 18:30	Keynote: Speaker: Dr. Ian T. Foster (Father of Grid Computing), <i>University of Chicago and Argonne National Laboratory, USA</i>

October 16, 2020	
9:30 - 10:20	Keynote: <i>Detecting network anomalies and intrusions</i> Speaker: Dr. LjiljanaTrajkovic, <i>Professor, School of Engineering Science, Simon Fraser University, Burnaby, British Columbia, Canada</i>
10:20 - 11:10	Keynote: <i>In Hardware We Trust: Electronic Design Automation</i> Speaker: Dr. Nicolas Sklavos, <i>Associate Professor, Computer Engineering and Informatics Department (CEID), Polytechnic School, University of Patras, Hellas</i>
11:10 - 12:00	Keynote: <i>Learning from Class-Imbalanced Data: Challenges,Methods and Applications</i> Speaker: Dr. El-Sayed El-Alfy, <i>Professor, King Fahd University of Petroleum and Minerals, Saudi Arabia</i>
12:00 - 13:00	Keynote: <i>Device Edge Computing: Next Frontiers for IoT and Robotics</i> Speaker: Dr. Arpan Pal, <i>Chief Scientist and Research Area Head, Embedded Systems and Robotics, TCS Research, India</i>
13:30 - 14:30	Keynote: <i>AI Approaches for IoT Security Analysis</i> Speaker: Dr. Axel Sikora, <i>Professor, Institute of Reliable Embedded Systems and Communication Electronics (ivESK), University of Applied Sciences Offenburg, Germany</i>
Parallel Technical Sessions	
14:45 - 18:00	ACN-02: International Conference on Applied Soft Computing and Communication Networks - Short Papers
	CoCoNet-S6: Symposium on Emerging Topics in Computing and Communications (SETCAC'20)- Regular & Short Papers
	CoCoNet-S6A: Applied Computing (Regular Papers)
	CoCoNet-S7: Networked Systems and Security(Short Papers)
	ISTA-05: Intelligent Tools and Techniques and Applications(Regular Papers)
	ISTA-06: Applications using Intelligent Techniques(Regular Papers)
	SIRS-03: Sixth International Symposium on Signal Processing and Intelligent Recognition Systems (Regular & Short Papers)
	SoMMA-02: Symposium on Machine Learning and Metaheuristics Algorithms, and Applications (Regular & Short Papers)
15:30 - 18:00	Lightning Talks

October 17, 2020	
9:30 - 10:20	Keynote: <i>Predictive Analytics Frameworks for Forecasting High Impact Economic Impacts and Insider Trading Events</i> Speaker: Dr. Vipin Chaudhary, Kevin J. Kranzusch Professor and Chair, Case Western Reserve University, USA
10:20 - 11:20	Keynote: <i>Quantum-inspired Processing and Networking</i> Speaker: Dr. DilipKrishnaswamy, Vice President (New Technology R&D), Reliance Industries Ltd, India
11.20 – 12.10	Keynote: <i>Smart Sensors</i> Speaker: Dr. Jose Joseph, Assistant Professor, Indian Institute of Information Technology and Management-Kerala (IIITM-K), Trivandrum, India
11:30 - 13:00	Hot off the Press
13:30 - 14:20	Keynote: <i>Toward effective Network Traffic Classification via Deep Learning</i> Speaker: Dr. Domenico Ciuonzo, DIETI, University of Naples, Federico II, Italy
Parallel Technical Sessions	
14:30 - 17:15	CoCoNet-S8: Communications, Control and Signal Processing (Regular & Short Papers)
	CoCoNet-S9: Image and Signal Processing, Machine Learning and Pattern Recognition (Short Papers)
	ISTA-07: Intelligent Tools, Techniques and Applications (Short Papers)
	ISTA-08: Intelligent Tools, Techniques and Applications (Short Papers)
16:30 - 17:20	Keynote: <i>Artificial Intelligence and the Internet of Things: Security and Autonomy</i> Speaker: Michael Losavio, Department of Criminal Justice, College of Arts and Science, University of Louisville, KY, USA

INSTRUCTIONS TO THE PRESENTERS

ORAL PRESENTATIONS

- The oral paper presentations are for **15 minutes, which may not be exceeded**. 12 minutes time for the presentation and 3 minutes for the Q & A. There are a maximum of 8 presentations in each oral session.
- The Oral Presentations are done in ZOOM.
- Each session will have 2 Session Chairs, a Moderator, Presenters and participants of that session.
- Presenters and Participants are expected to join the ZOOM link 10 minutes prior to the starting of their session. They will be routed to their respective session rooms
- Moderator will co-ordinate the session, manage Q & A and the presenters will report to the moderator

YOUR SLIDES

- For 12 minutes of presentation, you can prepare around maximum of 15 slides in PowerPoint, including the introduction and end slide
- Be sure that the PowerPoint slides have the same layout all way through
- Observe that the content of each slide is not too detailed
- The possibilities of animations are numerous. Please do not exaggerate
- Graphs and figures are often better than tables at an oral presentation. Flow charts are very appropriate to describe material

- If you wish to add films (demonstrations & executions) or other sorts of interactive materials, please include these in the presentation (do not access them through internet, as this may not work to your satisfaction) and inform the Conference Office beforehand

TECHNICAL INFORMATION

- The Presenters will be presenting through online Zoom Link, which is shared below.
- Please have your file as a PowerPoint file, ready to be shared in ZOOM.
- Your slides should have an aspect ratio of 16:9 (wide screen).
- Also, share your presentation slide with the Session Moderator for compilation

DETAILED ZOOM GUIDE FOR PRESENTERS

INITIAL ZOOM SETUP

1. Please install [Zoom](#) in advance.
2. For a stable connection to the meeting, please check the [Zoom Webinar Best Practices and Resources](#).
3. Before you connect to the Zoom Platform, have the PowerPoint presentation open on your desktop, NOT in presenter mode. We **recommend you to use Laptop/Desktops** instead of phone for a better presentation experience and control.
4. Close all other windows/apps, especially mail programs
5. Make sure you are in a space where you can control noise and interruptions. You can connect to the audio by phone or using a headset connected to your computer. We do not recommend using the microphone on a laptop, as this is not high enough quality for the recording.
6. If you leave Zoom on, make sure that your microphone is muted during the break.

HOW TO JOIN THE SESSION

1. The Zoom Link and credentials are

CONNECT TO THE CONFERENCE USING THE BELOW ZOOM DETAILS:

<https://chennai-vit.zoom.us/j/99180294302?pwd=TXIoUkVHWnFrbWtoVUJkWG81VytMZz09>

Meeting ID: 991 8029 4302 Password: 284333

2. Click on the ZOOM session link to join the meeting.
3. If you are joining the Session before the host has started the meeting, please wait in the lobby until the host starts the Session. Inform your **Paper ID and Session No.** to the moderator. Once you are admitted, you will be connected into your respective Breakroom, by the moderator.
4. **Inform the host (Moderator) that you are the presenter, in Chat Window.**
5. When the Session Chair calls out your Paper ID, you can share your Screen from your computer.

SCREEN SHARING

- Click on the Share icon, either in the main window or in the control panel.
- If asked, choose “basic” screen sharing,
- Select the PowerPoint presentation you wish to display (NOT the “screen” option), this makes sure participants can only see your presentation, nothing else that may be going on with your computer during the presentation. Your slide deck will then come up as your main screen.
- In PowerPoint:
 - Switch to Slide Show mode.
 - Give your presentation.
- When done, click Zoom's *Stop Share* button.

Q&A SESSION

- A live Q&A Session will follow each talk/presentation, moderated by the Session Chair/Moderator
- Participants will be muted and they need to submit questions through the Chat window to the moderator only (host), during the presentation before the Q &A Session starts
- The Session Chair/Moderator will select and ask the questions during the Q&A session. There may not be enough time to answer all questions. The Moderator will make sure to ask related questions in the approximate order that they were first submitted.
- The Moderator will have the ability to unmute participants if this is needed to elaborate on their questions (please note that due to the limited Q&A duration, participants may want to discuss with the author(s) off-line).

In case the registered participants find any difficulty in joining the ZOOM link, they may kindly text their registered mail-id to **+91-7358794364** on WhatsApp.

In case you need any clarifications/assistance on ZOOM connection during the conference, please contact:

+91- 73587 94364 or +91- 96772 71150