

GCN GLOBAL COMMUNICATIONS * NEWSLETTER



October 2020 ISSN 2374-1082

CHAPTER REPORT

Activities of the ComSoc/VTS Italy Chapter during the COVID-19 Pandemic

By Francesco Benedetto, Roma Tre University, Roma; Silvia Ullo, University of Sannio in Benevento, Benevento; Barbara Masini, CNR - IEIIT, Bologna; Gianni Pasolini, University of Bologna, Bologna; and Fabrizio Granelli, Chair of the IEEE ComSoc/VTS Italy Chapter, University of Trento, Italy

During the pandemic of COVID-19, the IEEE VTS/ComSoc Italy Chapter activated several initiatives for its members to keep them engaged in community activities, even if remotely.

A competitive Call for Ideas was opened to spring up solutions to the challenges posed by Coronavirus, leveraging the use of Information and Communications Technologies (ICTs). The main objectives of the initiative were:

(i) Help citizens and health workers as well as support the education system and the business world to face the emergency caused by the pandemic.

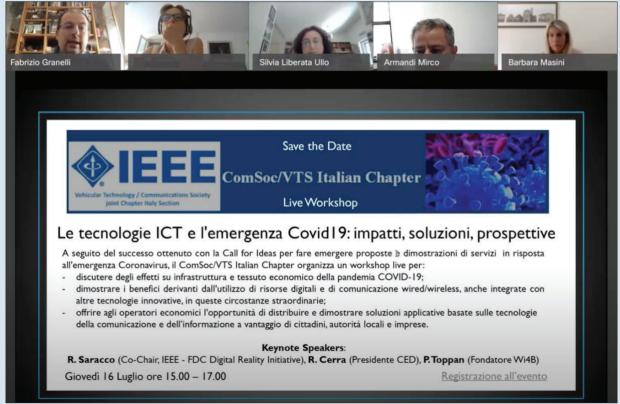
(ii) Develop new forms of healthcare and education in order to hold up the Italian community in the reaction to the dramatic outbreak of Coronavirus.

This initiative encouraged both young and experienced researchers of the IEEE VTS/ComSoc Italy Chapter to take an active part in the competition, by proposing ideas and methods during the lockdown period. Despite the competitive nature of the initiative, the Call for Ideas was meant as an opportunity for our scientific community to come together and define creative and unexpected solutions to face a situation that was unimaginable until a few months ago. This call further demonstrated how crucial and strategic the VTS/ComSoc activities are for the Country, as the proposed solutions addressed very relevant

Examples of application areas for the Healthcare theme (but not limited to) were:

- (i) Remote diagnosis, initial treatment and follow-up of
- (ii) Real time support or training for medical personnel using videoconferencing or telepresence systems.
- (iii) Planning of medical resources.
- (iv) Follow-up of patients with other diseases.
- (v) Remediation of infected areas.
- (vi) Remote assistance for children and families who cannot be physically reached by social support workers.
- (vii) Ensure the mental health and well-being of people confined to home.

(Continued on Newsletter page 4)



The workshop on ICT and Covid-19 emergency, held online on July 16, 2020.

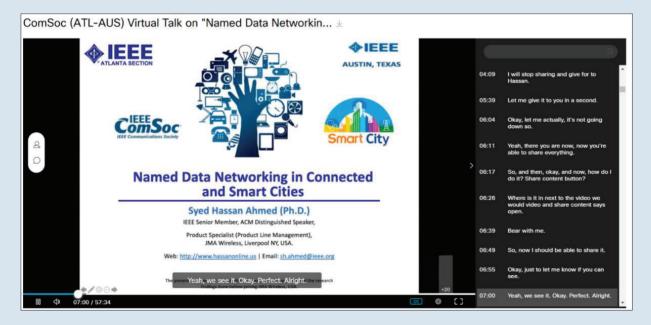
The IEEE ComSoc Atlanta Chapter Offering Virtual Solutions to Help Its Members

By Tamseel M. Syed, Chair of the IEEE ComSoc Atlanta Chapter, YP AG, IEEE Day Ambassador, USA

The Atlanta ComSoc Chapter is one of the more active Chapters in IEEE Region 3 with more than 200 members. In late 2019, there was a transition in Chair leadership wherein Mr. Tamseel Mahmood Syed took over as the Chair of this Chapter. Mr. Tamseel has been associated with the field of wireless communication for the past 10 years. He completed his Master of Science in electrical engineering from The University of Akron in Ohio during 2011-13. He was a research assistant with his thesis focusing on co-operative (relay assisted) communication techniques. He has a few refereed publications from this work at the University of Akron. Then he was an intern at The Coca Cola Company for about six months and later became an RF engineer in Newfield Wireless which was part of Tektronix Communications from 2014 to 2016. He also completed his MBA from DeVry University in 2018 and is currently pursuing his Ph.D. in electrical engineering from The University of Alabama in Huntsville. His current research is focused on PHY layer co-operative communication, signal processing for communications, non-linear signal processing/dynamics, RF design, 4G/5G systems, error control coding, decision/estimation theory, and cognitive radio. He became an IEEE Senior Member in 2020 and looks forward to improving the quality and quantity of value that IEEE offers to its members in the Atlanta Section. In order to accomplish this, he plans to encourage active participation from IEEE members by offering multiple opportunities including speakers from diversified fields of interest, continuation of virtual technical sessions, hosting national/international conferences, engaging student members, mentoring programs for young professionals, and many more.

In the first year of his leadership, he has already arranged for virtual lectures in July and August. During the July talk, Atlanta ComSoc hosted Dr. Syed Hassan Ahmed of JMA Wireless, who spoke about "Named Data Networking in Connected and Smart Cities". This presentation showcased alternative protocols to IPv4 and IPv6 that can address the traffic congestion in today's Internet. It was an enjoyable session on how the future of the Internet can be implemented. Another presentation on August 31, 2020 was given by Mr. William (Bill) Lawton of GTRI. He gave a talk on "5G New Radio". With all the buzz around 5G, Lawton showed the possible 5G architectures that are being used under 5G New Radio and the specific Radio Access Network areas in which the commercial cellular carriers are implementing the 5G New Radio. It was an insightful discussion on how the use of 5G technology to better the connectivity and experience of consumers is broadly carried out. These events where well attended and the attendance doubled compared to the in-person activities prior to the Covid-19 pandemic.

ComSoc will be hosting its first 2020 virtual distinguished lecture on September 15, 2020, when Dr. Huseyin Arslan from the University of South Florida will be discussing "Flexible and Cognitive Radio Access Technologies for 5G and Beyond". They hope to host more virtual distinguished lectures by the end of 2020. The ComSoc Atlanta Chapter is on pace to become one of the most active ComSoc Chapters and will need support from all of you by taking advantage of the offerings to help increase the value offered by your IEEE membership. In 2021, the ComSoc Atlanta Chapter will be hosting two conferences: SoutheastCon 2021 and RadarCon 2021. Mr. Tamseel is the TPC Co-Chair of SoutheastCon 2021 and is soliciting your participation by submitting your work to either of these conferences. Additionally, the ComSoc Atlanta Chapter has registered an interest to host one of the flagship ComSoc conferences sometime in the future. Please reach out to Mr. Tamseel if you wish to be part of these future activities. Be safe amid this pandemic and let's learn to innovate in novel ways.



CONFERENCE REPORT

IEEE Leadership Summit: Engineering in COVID-19: Second and Third Webinar

A Collaboration of the IEEE Indonesia Section, IEEE Region 10, and the IEEE Singapore Office

By Ewell Tan, Project Manager, IEEE Asia-Pacific Limited

The IEEE Leadership Summit: Engineering in COVID-19 webinar was successfully concluded in three series with different highlights addressing the current global challenges and issues:

 The first webinar on 2 May highlighted "When the most important technology is teamwork" (published in the R10 Newsletter, July issue, page 53).



IEEE Leadership Summit: Engineering in COVID-19 3rd webinar.

- The second webinar on 20 June focused on "Preparing and Shaping New Societies".
- Third webinar on 25 July focused on "Innovation and its challenges in the new world environment".

This webinar series is a collaboration between the IEEE Indonesia Section, IEEE Region 10, and the IEEE Singapore office, which has successfully attracted over 600 participants in the Asia-Pacific region.

Under the leadership of the organizing committee chair, Agnes Irwanti, this webinar series was honored by the participation of prominent keynote speakers, including Prof. Bambang Brodjonegoro, Minister of Research and Technology, National Research and Innovation Agency Indonesia; Dr. Ir. Ismail MT from the Indonesia Ministry of Communications and Informatics; and Dr. Laksana Tri Handoko, the Head of the Indonesia

Institute of Sciences, Indonesia Governmental Authority for Science and Research.

The organizing committee took pride to invite distinguished speakers, including IEEE MGA Vice-President, Prof. Kukjin Chun; IEEE Region 10 Director, Prof. Akinori Nishihara; Indonesia Former Deputy Chief of Staff to the President, Dr. Yanuar Nugroho; CEO of AllThingsConnected, Mr. C. K. Vishwakarma; Past IEEE R10 Young Professionals Coordinator, Mr. Nivas Ravichandran; IEEE R10 Educational Activities Committee Chair, Prof. Lance Chun Che Fung; the Founder of World Toilet Organization and BOP HUB, Prof. Jack Sim; and the Director of Digital Business PT Telkom Indonesia, Mr. Muhamad Fajrin Rasyid. All of these speakers shared their insightful per-

(Continued on Newsletter page 4)

CONFERENCE REPORT

2020 Taiwan Telecommunications Annual Meeting

By Tsang-Yi Wang, IEEE CH10311 Tainan Section, Taiwan

The 2020 Taiwan Telecommunications Annual Meeting was held at THE E-DA Royal Hotel, Kaohsiung, Taiwan, on January 14–17, 2020 (http://www.mostcep.tw/telecom2020/). The meeting combined three major conferences in the area of communications engineering in Taiwan, namely the 2020 National Symposium on Telecommunications, the Spring 2020 session of the IEEE Taiwan Workshop on Information Theory and Communications, and the 2020 Electromagnetics Workshop – A Bridge to the Future.

The annual National Symposium on Telecommunications serves mainly to provide a platform for the publication of new knowledge in the telecommunications field and new technologies in the industrial research and development field. Meanwhile, the IEEE Taiwan Workshop on Information Theory and Communications provides an important forum for the exchange of advanced information theories and communication technologies between academia and industry in Taiwan. Finally, the Electromagnetics Workshop – A Bridge to the Future is the largest electromagnetic technology conference in Taiwan and provides the opportunity for experts to share their latest research findings on such issues as the current status of industrial development in Taiwan and the world, the future development of the microwave

and millimeter wave field, and the skills requirements of industry. The topics covered at the annual meeting encompass all the major fields of telecommunications, including electromagnetics, communications, signal processing and networking.

Broadly speaking, the main objectives of the meeting are as follows:

- 1. To invite domestic and foreign experts to report their latest research results and initiatives, to outline their thoughts regarding future research and development directions for the benefit of participating teachers and students, and to introduce advanced thinking and new technologies for the information of industry.
- 2. To invite professors with a record of outstanding achievements in MOST projects over the years to share their latest research findings.
- 3. To invite the heads of domestic telecommunication-related academic organizations to report on the status of their organizations and related research planning directions such that domestic academics participating in the meeting can familiarize themselves with recent progress in industry, government and science, respectively, regarding electromagnetics, communications, signal processing and networking, and can use this knowledge as a reference for their own future academic research planning.
- 4. To handle the annual reports of the research projects funded by MOST.

The 2020 Taiwan Telecommunications Annual Meeting was attended by a total of 99 IEEE members and 777 guests and included 44 invited talks, two poster sessions and an IEEE Communication and Information Theory Society member meeting.

COMSOC/VTS ITALY CHAPTER/Continued from page 1

Examples of application areas for the Education theme (but not limited to) were:

- (i) e-learning.
- (ii) Remote training and education for teachers and students.
- (iii) "Virtual" social interaction to involve children.

Examples of application areas for the business theme (but not limited to) were:

- (i) e-training and e-conferencing for entrepreneurs.
- (ii) Social spacing monitoring techniques
- (iii) New forms of promotional events and networking between companies.

The evaluation criteria used to rank the submitted ideas were their innovative content, their interdisciplinarity approach and feasibility, the accuracy of the project structure, and the degree of completeness and clarity of the submitted document. Three ideas were finally selected and funded.

To further promote the use of science and technology to counteract the pandemic, the IEEE VTS/ComSoc Italy Chapter also organized a live workshop, titled: "ICT and the Covid-19 emergency: impacts, solutions, perspectives", whose Keynote Speakers were: Roberto Saracco, IEEE Co-Chair - FDC Digital Reality Initiative; Rosario Cerra, President of the Italian Digital Economical Center; and Paolo Toppan, Founder of the Wi4B engineering company.

The three Keynote Speakers addressed the workshop topic from three different perspectives:

- (i) The lockdown and the pandemic's impact on both the Italian telecom infrastructures and industries.
- (ii) The economic benefits of using digital and wired/wireless communication resources, also integrated with other innovative technologies, during such an extraordinary and unique emer-
- (iii) The integration of artificial intelligence and communication technologies into newly conceived devices, especially designed to support citizens, local authorities and businesses.

The discussion was also enriched by a round table which was attended by more than 70 registrants and that was honored by the presence of Mirco Armandi, director of the department of "Information Systems and Technological Development" of "Emilia Romagna Public Transportation" (TPER), and Luca Foresti, Chief Executive Officer of Centro Medico Santagostino, who further discussed the impact of the pandemic on policies, management and services of public transportation and medical situations. Panel discussions underlined the need for identifying proper actions to support communications and ICT technologies in general to enhance their performance during emergen-

In addition, the Chapter activated a series of webinars by international experts, within an initiative called "COMMS4ITA-LY", especially targeted to the young audience of researchers having difficulty in meeting and knowing the experts in the field of communications and their visions. In particular, the following webinars were proposed that attracted globally more than 200 attendees:

- · Jaafar Elmirghani (Univ. of Leeds, UK), "ICT Sustainability".
- · Lajos Hanzo (Univ. of Southampton, UK), "Quantum Communications".
- Ashutosh Dutta (IEEE Future Networks Founding Co-Chair), "IEEE Future Networks Roadmap".
- Frank Fitzek (TU Dresden, 5G Labs Germany), "5G Rules, who needs 6G?".

The webinar series was supported by CNIT (Italian National Consortium of Telecommunications), and it resulted in collecting more than \$2000 in donations for the Italian Emergency Services. The presentations were recorded and will be made available through the ieee.tv platform to all ComSoc members.

LEADERSHIP SUMMIT/Continued from page 3

spectives about the current world challenges and offered the participants some food for thought about the new world environment in the second and third webinar.

The webinar series also addressed the complexity of global and social structures, accompanied by innumerable uncertainties in terms of health, security, policies, communication and information. Thus, a strong social collaboration between government agencies, corporations, industries, academia, researchers and the people are the most in need to shape the new societies.

It is undeniable that with the powerful capability of Artificial Intelligence (AI) in solving problems, creating and growing the economy, boosting productivity and improving our quality of life, AI is expected to be the key driver behind the fourth industrial revolution and at the forefront of the ever-changing world we live in. Nevertheless, we will have to consider ethics as part of the essential elements in the design and application process.

At the heart of this webinar, the COVID-19 pandemic has forced every one of us to reorganize, rethink and reshape our life and future. Let us gear up to tackle the challenges and dedicate human assets as the most important factor to transform into a more sustainable mode. Through the spirit of collaboration and mutual respect, we shall combat the challenges and emerge stronger.



Editor-in-Chief

Politecnico di Milano, Italy Email: bregni@elet.polimi.it, s.bregni@ieee.org

FABRIZIO GRANELLI

Associate Editor University of Trento, Italy Email: fabrizio.granelli@unitn.it

IEEE COMMUNICATIONS SOCIETY - MEMBER AND GLOBAL ACTIVITIES

NELKATO, VICE-PRESIDENT FOR MEMBER AND GLOBAL ACTIVITIES RICARDO VEIGA, DIRECTOR OF MEMBER SERVICES NURY GABRIELA RAMIREZ CELY, DIRECTOR OF LA REGION FAWZI BEHMANN, DIRECTOR OF NA REGION CHRISTOS VERIKOUKIS, DIRECTOR OF EMEA REGION SUMEI SUN, DIRECTOR OF AP REGION MAITE BRANDT PEARCE, CHAIR OF THE WICE STANDING COMMITTEE SHASHANK GAUR, CHAIR OF THE YP STANDING COMMITTEE

REGIONAL CORRESPONDENTS WHO CONTRIBUTED TO THIS ISSUE

EWELL TAN, Singapore (ewell.tan@ieee.org) ANDREA CARRION HERRERA, Ecuador (a.k.carrionherrera@ieee.org)



www.comsoc.org/gcn ISSN 2374-1082