Speakers of the workshop with family members on panorama of Yerevan.

Several invited lectures were delivered by: Han Vinck on relations of information theory and big data; Gurgen Khachatrian (American University of Armenia) on security challenges in cloud computing; Mariam Haroutunian and Evgueni Haroutunian (Institute for Informatics and Automation Problems, Armenian National Academy of Sciences) on information theory research in Armenia; Yanling Chen (University of Duisburg-Essen) on secure communication in networked systems. Anahit Ghazaryan (School no. 21, Russian Ministry of Defense) lectured on biometrics and information theory. Her presentation summarized joint work with Vladimir Balakirsky who untimely passed away in 2013. Ashot N. Harutyunyan shared experiences in building an enterprise data analytics and relevant concepts from information theory.

Proceedings of the workshop can be downloaded from the event web: https://informationbigdata.wordpress.com/

2016 IEEE Shannon Centennial Workshop on Communications and Information Theory (SCWCIT 2016)

December 13–14, CDAC, Thiruvananthapuram, Kerala, India

Claude Elwood Shannon (April 30, 1916–February 24, 2001) was a renowned American mathematician, a genius electrical engineer, and an eloquent cryptographer. Due to his remarkable contribution in the field of information and communication technology, Shannon is considered as "the father of information theory." Shannon also contributed in many allied fields such as digital circuit design theory and cryptography.

The 2016 IEEE Shannon Centennial Workshop on Communications and Information Theory (SCWCIT 2016), during December 13–14, celebrated Shannon's 100th birthday at the Centre for Development of Advanced Computing (CDAC), Thiruvananthapuram, India. The workshop is sponsored by IEEE Information Theory Society and co-organized by the Indian Institute of Space Science and Technology, Center for Development of Advanced

Figure 1. (a) Wecome address by Dr.Chinmoy Saha, IIST and (b) Inauguration of the SCWCIT 2016 by Dr. V.K. Dadhwal, Director, IIST.

Figure 2. Speakers of SCWCIR delivering their lectures.

Computing, and IEEE Kerala Section (Antenna and Propagation society and Communications society).

The program was inaugurated by Dr. V.K. Dadhwal, Director, Indian Institute of Space Science and Technology, Trivandrum after the welcome address by Dr. Chinmoy Saha (Fig. 1). Dr. Vineeth B. S. (IIST) and Mr. Senthil Kumar (CDAC) were the organizing co-chairs for this workshop. The two day workshop featured Shannon centennial talks from eminent speakers such as Prof. Tapan K. Sarkar (Syracuse University, USA), Prof. Magdalena Salazar Palma (Carlos III University of Madrid, Spain), and Prof. Vikass Monebhurrun (CentraleSupelec, France), Prof. J. Y. Siddiqui (Institute of Radio Physics, Kolkata) and Birenjith P. S. (Govt. College of Engineering, Barton Hill). Prof. Tapan K. Sarkar (Fig 2(a)) delivered the first Shannon centennial lecture on "*Evolution of information theory from Maxwell to Shannon, Gabor, and Tuller from a physics perspective*" where the genesis and evolution of the field of information theory was highlighted great details. This was followed by a second Shannon centennial lecture by Prof. Magdalena Salazar Palma (Fig. 2(b)) on "*Simultaneous information and power transfer in wireless systems*" where theoretical and simulation analyses on information and power transfer possibilities, over the same wireless channel, by incorporating the transmitting and receiving antenna systems were thoroughly discussed. The last Shannon centennial lecture was delivered by Prof. Vikass Monebhurrun (Fig 2(c)) on "*How do we resolve uncertainty?*" which mainly focused on the application of polynomial chaos expansion method for the uncertainty quantification in numerical modeling using electromagnetic simulation tools. The first day of the

workshop was concluded with a vibrant panel discussion on "*Information revolution in next decade: opportunities and challenges for India*" where current state-of-the-art of ICT was discussed along with its challenges in real-world implementations. The esteemed panelists for the topic were Mr. Sasi P. M. from CDAC, Prof. Raveendranathan from College of Engineering, Thiruvananthapuram, Dr. Deepak Mishra from IIST, and Dr. T. J. Aprem from Vikram Sarabhai Space Centre, Thiruvananthapuram. The panel was moderated by Dr. Chinmoy Saha, IIST.

Day-2 of SCWCIT 2016, December 14, started with a very interesting lecture by Prof. Jawad Y. Siddiqui from University of Calcutta on "*Remote diagnosis and patient monitoring in rural India—an IEEE AP-S SIGHT initiative*" where a conceptual method to diagnose and remotely monitor patients in rural India with the light of mobile communication technology was proposed. The talk was followed by another scintillating talk by Mr. Birenjith P. Sasidharan from Government Engineering College Bartonhill, Thiruvananthapuram on "*Distributed coding for storage*" where the concept of mutual information was highlighted. Apart from the technical talks, an undergraduate student poster presentation competition and a graduate student research discussion forum was also scheduled on Day-2. In the poster presentation competition, 10 student groups presented some of their early research results, and out of that, 3 best poster presenter groups were selected by the panel of judges. In a graduate research discussion forum, 7 research students presented some of their key research findings and also highlighted their future research directions. The two-day workshop, SCWCIT 2016, ended with a valedictory session where the three selected best poster presentation groups were awarded by the SCWCIT 2016 poster committee co-chairs. Moreover, all graduate research forum presenters were awarded mementoes by the SCWCIT 2016 workshop co-chairs. The closing ceremony was concluded by the vote of thanks by Dr. Vineeth B. S., the organizing committee co-chair of SCWCIT 2016.

The workshop was extremely successful in bringing together academicians, students, and engineering professionals in related fields to commemorate the contributions of Shannon through student poster presentations, and a student research discussion forum. Notably, the SCWCIT 2016 workshop was also covered by the leading news media of Southern India such as Indian Express, Madhyamayam, and Deepika.

Chinmoy Saha

Figure 3. (a) Talk by Prof, JY Siddiqui (b) A group-photo with the speakers and the organziers.