Communications in Computer and Information Science

1604

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Nirbhay Chaubey · Sabu M. Thampi · Noor Zaman Jhanjhi (Eds.)

Computing Science, Communication and Security

Third International Conference, COMS2 2022 Gujarat, India, February 6–7, 2022 Revised Selected Papers



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ISSN 1865-0929 ISSN 1865-0937 (electronic) Communications in Computer and Information Science ISBN 978-3-031-10550-0 ISBN 978-3-031-10551-7 (eBook) https://doi.org/10.1007/978-3-031-10551-7

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Preface

This volume contains the papers presented at the Third International Conference on Computing Science, Communication and Security (COMS2 2022), held at the beautiful campus of Ganpat University, India during February 6–7, 2022. COMS2 2022 was held online, wherein the invited guests, keynote speakers, dignitaries, session chairs, paper presenters, and attendees joined a two-day international conference using Zoom video conferencing. The online conference forum brought together more than 135 delegates including leading academics, scientists, researchers, and research scholars from all over the world to exchange and share their experiences, ideas, and research results on aspects of computing science, network communication, and security.

The conference was virtually inaugurated on the first day by the National Anthem "Jana Gana Mana" with the online presence of academic leaders and luminaries: Shri Ganpatbhai I. Patel (Padma Shri), President and Patron in Chief, Ganpat University, India; Ashutosh Dutta, the Invited Guest of the program and IEEE Fellow, Senior Scientist, and 5G Strategist, Johns Hopkins University, USA; Prabhat Ranjan, Vice-Chancellor, D Y Patil International University, India, and Former Executive Director, TIFAC, Government of India; Sudip Misra, IEEE Fellow, Professor of Computer Science and Engineering, Indian Institute of Technology (IIT), Kharagpur, India; Martin Maier, Professor, National Institute for Scientific Research (INRS), Canada; Balaji Rajendran, Associate Director, Centre for Development of Advanced Computing (C-DAC), Bangalore, India; Mahendra Sharma, Pro. Chancellor and Director General, Ganpat University, India; Rakesh Patel, Pro. Vice Chancellor, Ganpat University, India; Amit Patel, Pro. Vice Chancellor and Executive Registrar, Ganpat University, India; Kiran Amin, Executive Dean of Faculty of Engineering and Technology, Ganpat University, India; and Satyen Parikh, Executive Dean of Computer Science, Ganpat University, India, which declared the conference open for further proceedings.

COMS2 2022 accepted 22 papers as oral presentations (out of 143 full papers received and critically peer reviewed using the Springer OCS System), which were presented during the two days of the conference. All the accepted papers were peer reviewed by three qualified reviewers chosen from our Technical Program Committee based on their qualifications and experience.

In addition to the paper presentations there were five plenary lectures covering the different areas of the conference. Ashutosh Dutta graced the conference and delivered a talk on "5G Security - Opportunities and Challenges". Prabhat Ranjan addressed "Building a Future-focused Research University and Emerging Research Areas". Sudip Misra spoke about "IoT in Healthcare". Martin Maier delivered a talk on "Internet of No Things in the Era of 6th Generation Networks" and Balaji Rajendran addressed "Cyber Resilience: Inspiration from the Internet Addressing Systems".

COMS2 also featured a session track with the following panel members and session chairs: Savita R. Gandhi, Gujarat University, India; Nikhil J. Kothari, Dharmsinh Desai University, India; J.M.Rathod, BVM Engineering College, India; Maulika Patel, CVM

University, India; Anand Nayar, Dua Tan University, Taiwan; Snehal Joshi, Veer Narmad South Gujarat University, India; Vishvjit Thakkar, Gujarat Technological University, India; and Vrushank Shah, Indus University, India.

The proceedings editors wish to thank the dedicated Technical Program Committee members and all the other reviewers for their contributions. We also thank Springer for their trust and for publishing the proceedings of COMS2 2022.

The conference was organized by Ganpat University as a well-reputed private university established through the Government of Gujarat State Legislative Act No.19/2005 on April 12, 2005, and recognized by the UGC under the section 2(f) of the UGC Act, 1956, having a campus which spread over more than 300 acres of land with world class infrastructure and more than 10,000 students on campus. In consideration of its contribution to education in a short period of time, the university has been given Permanent Membership of the Association of Indian Universities (AIU), besides having membership of the Association of Commonwealth Universities (ACU), UK, and the International Association of Universities (IAU), France. Ganpat University offers various unique, quality, industry-linked and sector-focused Diploma, Undergraduate, Postgraduate, and Research-level programs (professional and non-professional) in the fields of engineering, computer science, management, pharmacy, sciences, commerce and social science, architecture, design and planning, maritime studies, law, etc.

In a nutshell, the conference was full of fruitful discussions, igniting the spirit of research. It was indeed a remarkable, memorable, and knowledgeable virtual conference. The success of COMS2 2022 means that planning can now proceed with confidence for the Fourth International Conference on Computing Science, Communication and Security (COMS2 2023) scheduled for February 2023 at Ganpat University, India.

February 2022

Nirbhay Chaubey Sabu M. Thampi Noor Zaman Jhanjhi

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