28th International Conference on Software, Telecommunications and Computer Networks
- SoftCOM 2020
September, 17 – 19, 2020, Virtual Conference

Proceedings of the 11th Symposium on Green Networking and Computing (SGNC 2020)
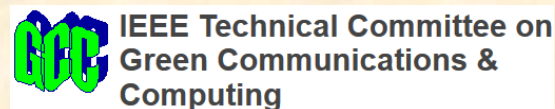
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SYMPOSIUM INFORMATION

COMMITTEE

PROGRAM

TRACKS

AUTHORS

In cooperation with:

IEEE Technical Committee on Green Communications & Computing

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11TH SYMPOSIUM ON GREEN NETWORKING AND COMPUTING (SGNC 2020) ORGANIZERS MESSAGE

Foreword

Although progress in the Information and Communication Technology (ICT) infrastructure is continuous and evident, administrations and companies experience issues of tackling sustainability challenges and adopting ecologically acceptable solutions. ICT infrastructure and consumer devices spent significant amounts of electrical energy, which raises a challenge on electric grid functionality and gives a nonnegligible contribution to carbon-dioxide (CO_2) emissions. Additionally, a huge amount of network and user devices with high throughput capacity connected to the wired or wireless networks is having a crucial role in enlarging the energy consumption by communications networks.

To face this challenge, improved or completely new algorithms, tools, platforms, methodologies, paradigms, systems and energy models must be devised and practically implemented. These proceedings gather works on all aspects of enabling technologies for improving the energy efficiency of ICT infrastructure in line with green networking and computing paradigm. The eleventh in a row Symposium on green networking and computing (SGNC 2020) was organized in the frame of the 28th International Conference on Software, Telecommunications and Computer Networks (SoftCOM 2020). Due to the COVID-19 pandemic, the SGNC 2020 symposium was held as an online event on September 19, 2020. Organizers of the 11th Symposium on green networking and computing (SGNC 2020) are the University of Split, Faculty of electrical engineering, mechanical engineering and naval architecture (FESB), Croatia and Politecnico di Milano University, Department of Electronics, Informatics and Bioengineering (DEIB), Italy. The SGNC 2020 symposium is organized in cooperation with the IEEE ComSoc Technical Committee on Green Communications and Computing (TCGCC) and the Croatian ACM chapter (CRO ACM).

In the frame of the 11th SGNC 2020 symposium, three accepted papers have been presented in the technical program of the SGNC 2020 symposium (SYM1/I). Accepted and presented papers cover different topics related to the analyses of metrics for expressing energy-efficiency in 5G networks, energy-aware protocols for routing of data in wireless sensor networks and software-defined storage optimization of computing resources.

We hope that readers of these proceedings will find the articles and presentations informative and that they will enjoy reading this feature topic devoted to exciting fast-evolving field of green networking and computing. We would like to thank all the authors who submitted articles to this Symposium and to all presenters who give their presentations which significantly contribute to international affirmation of this Symposium. Finally, we express our gratitude to all reviewers for their comments and valuable feedback on the submitted articles.

Antonio Capone, PhD   *Symposium Co-chairs*   **Josip Lorincz, PhD**

PROCEEDINGS INFORMATION

Proceedings of the 11th Symposium on green networking and computing 2020 (SGNC 2020)
International Conference on Software, Telecommunications and Computer Networks (*SoftCOM* 2020)

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SYMPOSIUM PROGRAM

SS8 – Special session on green networking and computing
Session chair: *Josip Lorincz, Ph. D., FESB, University of Split, Croatia*
September 19, 2020, 08:30 – 10:00, Conference room Oleandar (virtual)

Tracks

❑ *Special Session on Green Networking and Computing*

SS8 – *Special Session on Green Networking and Computing*

Special session organizers: Antonio Capone (Politecnico di Milano, Italy), Josip Lorincz (University of Split, Croatia)
Special session chair: Josip Lorincz (University of Split, Croatia)

❑ **EAGP: An Energy-Aware Gossip Protocol for Wireless Sensor Networks**
Bruno Chianca Ferreira (Institut National des Sciences Appliquées & Ecole Nationale de l'Aviation Civile, France); Vítor Francisco Fonte (UNU-EGOV & Universidade do Minho, Portugal); João Marco C. Silva (HASLab, INESC TEC & Universidade do Minho, Portugal)

❑ **Analyses of user density impact on energy-efficiency metrics in 5G networks**
Josip Lorincz, Zvonimir Klarin, Dinko Begusic (University of Split, Croatia)

❑ **Software-Defined Storage Optimization of Distributed ALICE Resources**
Petra Loncar and Sven Gotovac (University of Split, Croatia)

Authors

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