

The first International Conference on Big Data and Cyber-Security Intelligence

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Preface

The enterprise software ecosystem is largely driven by cutting edge technologies such as sensors, Artificial Intelligence (AI), and Social Media. These technologies are leading to a massive digital transformation within public service organizations and industrial solution landscape. Hundreds of organizations ranging from small to medium scale are adopting this critical transformation within and across their ecosystem. One of the critical consequences of such extreme digitalization is a gigantic growth of data – which has led the world to a data tsunami. And, it has given rise to the notion of Big Data which has created an ample of opportunities for various industries including Banks, Telecommunication, public service organizations, healthcare etc. Big Data has empowered industries to perform deep and wide analysis of their market, customer, strategies, products, and service etc. It has become the de facto technology used in producing a 360-degree view of organizations and decision making. However, the convergence of Big Data and Artificial Intelligence is currently the most critical phenomenon since these two technologies will augment intelligence and will lead the next generation digital transformation. The convergence of big data with Artificial Intelligence has been emerging as the single most important development that is shaping the future of

how firms drive business value from their data and analytics capabilities.

The advancement of technologies has brought detrimental consequence as well. They significantly increased cyber risks. With the growth of sensors and their wider adoption, the cyber space has become more vulnerable to attacks by the adversaries. The social medial platforms, blogs are turning into a place for terrorists to create terrorism networks.

The International Conference on Big Data and Cybersecurity Intelligence (BDCSIntell'2018) is a pioneering conference held at Lebanese University in Beirut, Lebanon during December 13-15, 2018. The conference aims at promoting research and innovation in cutting edge technologies mainly Big Data, AI, IoT, Social Media Analytics that is leading future digital transition. It also in General Data Protection Regulations (GDPR), Cybersecurity and Cyber Terrorism. To that end, BDCSIntell'2018 brought together researchers, engineers, practitioners interested in Big Data, AI, Cybersecurity, and General Data Protection Regulations (GDPR).

BDCSIntell'2018 announced two main areas. Big Data and Cybersecurity that covered a wide range of topics including Data Quality, Big Data Analytics, Artificial Intelligence, Models of Cyber Terrorism, GDPR, etc. In addition, it invited experts from industries

including banking, telecommunication, energy, oil, and gas, and healthcare to submit on use cases. BDCSIntell'2018 invited to submit paper falls within in three tracks: research and industry track, demo track, and poster track. The length of the paper was limited to 8 pages for full papers, 6 pages for short papers and 4 pages for demo papers. The conference featured keynote speech, panel discussion, and all the tracks.

This volume presents the accepted papers of BDCSIntell'2018. The conference received submissions from European and North American countries and also from MENA and LAVENT regions. In the first edition, BDCSIntell'2018 received 41 papers. After a careful review of each paper, with the help of 35 experts worldwide, 16 papers were finally selected together with 3 invited papers to be published and presented in this book. Each paper was reviewed by at least two independent experts who evaluated the originality and quality of the paper.

We would like express our gratitude all individuals, organizations, institutions that supported BDCSIntell'2018. We specially thank to our honorable sponsors for their invaluable contribution and cooperation to this conference. We also thank to our PC members. This high-quality program would not have been possible without the expertise and dedication of our PC members. We also want to express our thanks to the Organizing Committee for their dedication in helping to organize the conference. We owe a special thanks to steering committee members, the general chairs, program chairs, track chairs, finance chairs, publicity chairs, and Web chairs.

Finally, we thank all authors of research and industry papers, and those who presented their results, for contributing to this successful conference. With their work and

dedication, BDCSIntell will continue its effort in advancing the field of Big Data and Cybersecurity.

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