Editorial Foreword

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This special issue is based on the workshop "6G Knowledge Lab Opening and 36th GISFI Workshop" held 21–22 December 2020, organized jointly by the CTIF Global Capsule (CGC) and the Global ICT Standardisation Forum for India (GISFI). The special issue is divided in 2 parts of which this is the first part consisting of 5 papers.

6G will be the sixth generation of wide-area wireless technology. Wireless generations are standardized by the International Telecommunication Union (ITU) and other Standards Development Organizations (SDOs) every 10 years. 6G is envisioned as universal technology and infrastructure. The current trends of digitalization together with connectivity of everything everywhere, the increased user requirements for access & transmission of high-definition data while on the move, and the need for networking & intelligence in all spheres of life, demands 6G to be the accelerator of such transformation and innovation on a global scale. Current application trends that can be observed are based on Augmented Reality (AR), Virtual Reality (VR), Mixed Reality (MR), wireless brain-computer interaction, smart city, tactile communications, services based on quantum computing, holographic communications and several others. These developments together challenge the capabilities of the enabling wireless communication systems in various aspects, such as latency, wide range of data-rates, degree of intelligence, coverage, reliability and capacity. Research breakthroughs are thus required in all aspects of system and protocol layers so to provide novel concepts key to 6G. At the same time, it is important that 6G developments stays 'green', i.e. sustainability requirement, taking environmental considerations in account.

The 5 papers in this first part of the special issue on 6G are:

- On 6G Visions and Requirements
- Trends in Standardization Towards 6G
- Ubiquitous Networks: A Need of Future World of Things
- 6G Mobile Communications for Multi-Robot Smart Factory
- Data-driven Business Model Innovation for 6G