Preface

The notion of the Digital Twin, which is a digital replica of a physical entity, has become prevalent in various domains including manufacturing, urban planning, healthcare and transport. Digital Twins can be considered as a mirror reflection of the physical object, maintaining and providing an up to date status of their physical counterpart. Such functionality abstracts from access to physical devices, which normally have limited resources, supporting enhanced capabilities such as status visualisation, simulation of alternative scenarios, queries by application agents, and advanced diagnostics.

Digital twins require unambiguous descriptions of the physical entities and their digital counterpart, as well as the ability to integrate data from heterogeneous sources of information (including real-time data) and to interact with the physical world. Given these requirements, semantic technologies will play a significant role in bringing digital twins to reality.

The International Workshop on Semantic Digital Twins (SeDiT) was established to facilitate the progress of this emerging technology. Its aims are twofold. Firstly, to initiate discussion about current trends and future challenges of semantic digital twins. And, secondly, to support communication and collaboration, with the goal of aligning the various efforts within the community and accelerating innovation in all the associated fields.

Overall we received 9 submissions which underwent thorough reviewing by three reviewers each. Based on these reviews, we accepted 5 papers for presentation. We thank all authors and PC members for making the workshop a success.

We hope that SeDiT will be a fruitful meeting that will stimulate further developments in the field.

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