Foreword

The theme of the 3rd MVDA conference is the modeling, verification of distributed applications models and the transformation process based on ontologies. The emergence of distributed service applications among networks of computers offers many potential benefits. However, implementing robust, efficient, and extensible distributed applications is more complex than building stand-alone applications. A significant portion of this complexity is due to the fact that developers must consider new design alternatives and must acquire many new skills. The problem of building such applications requires finding and orchestrating appropriate services that are frequently non-trivial for a developer. This is due to the very large number of available services and the different possibilities for constructing an application from matching services. We need modeling approaches to give an abstract view of the application. These solutions will be guidelines for developers to build applications from existing services in distributed environment. Abstraction allows in one hand the reuse of the elaborated application and on the other hand reduces the complexity and saves the users from the detail of the low level of the environment. Proposed modeling approaches need a standard verification step against required properties to analyze and correct built applications as early as possible in order to avoid any costly maintenance delays due to runtime errors. Formal verification is a fundamental step to ensure the correctness of elaborated models. To provide such an open forum, we did seek contribution which fell in one or more of the following categories:

- Architecture and design principles for distributed applications
- Models and frameworks for distributed applications
- Methods, processes and patterns for developing distributed applications
- Ontological mapping
- Similarity of ontologies
- Model Driven Engineering
- Semantic composition
- Model driven composition
- Modeling formalisms, languages and notations for service workflow applications
- Tools, techniques and methodologies for verifying distributed application models

The papers published in these proceedings are selected from 15 submissions to MVDA 2014. After the blind Three-review by these experts per paper, the accepted papers were selected 7 papers. We are particularly pleased that the papers included in these proceedings come from authors from 7 countries.
Acknowledgement

Tremendous efforts were made in order to make MVDA 2014 a successful event and this book a valuable scientific collection. The true credit for these efforts goes to the dedicated authors of the papers and the highly respected international program committee members. The whole process supporting the workshop benefited from the COMPSAC 2014 framework, developed by the organization and steering committees of COMPSAC 2014, deployed and maintained by a valuable group of volunteers. We are grateful for their continuous assistance.

July 2014,

Workshop Organizers

Leila Jemni Ben Ayed
National School of Computer Science - ENSI
Laboratory LaTICE University of Tunis, Tunisia

Fevzi Belli
University of Paderborn,
Germany

Ahlem Ben Younes
Laboratory LaTICE – University of Tunis,
Tunisia

Yousra Bendaly Hlaoui
Laboratory LaTICE – University of Tunis,
Ecole Superieure de Commerce- University of Manouba,Tunisia