

**Building on smart cities skills and
competences**

A book edited by
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Introduction

This book aims to provide insights on 21st century required skills and in workplaces such as smart cities. It is widely accepted that skills required for students and current employees, to master the rapidly changing, digital society are diverse and associated with deeper learning, analytic reasoning, problem solving, and teamwork. These skills differ from traditional skills offered today from universities or vocational training providers, that in most cases are focusing on technical skills. So, this book will emphasize on the balance between learning skills, technical skills and domain specific skills. Special emphasis is given to innovative software development models such as agile software development and DevOps.

The objective of the book

We have selected to present the required skills and competencies of 21st century, in the context of smart cities, since in this domain various technologies are integrated for offering valuable services to the citizens, it involves the management of diverse stakeholders and it covers many different needs e.g. smart urban transport networks, smart water supply and waste disposal facilities and more efficient ways to conserve energy. Further, it includes skills and competencies for more interactive city management, for increased safety and resilience and finally of meeting the needs of citizens and businesses.

Additionally, it provides an introduction on the main skills and competencies trends for the 21st century and the main European/international frameworks and initiatives towards this direction. For example, it demonstrates how innovative software development skills such as DevOps are related to the development of smart cities.

Currently most of the available books and journals in this area are focusing on smart cities technological challenges leaving outside the human factor. Market research at the European level shows that in most cases municipality staff is not well trained and, in many cases, not able to support modern smart ecosystems.

Building on this fact, this edited book will present different facets on how to train or to upskill municipalities' workforce or how to educate the next generation of public servants or staff, in general, and how to design an educational/training curriculum.

Additionally, smart cities' market size is expected to grow to USD 820.7 billion by 2025. This estimation is expected to increase even further since new needs for public safety have been introduced with the COVID-19 pandemic.

Target Audience

The target audience of this book will be composed of professionals and researchers working in the field of smart cities. Moreover, the book will provide insights and support executives

concerned with the management of expertise, knowledge, information, and organizational development in smart cities work communities and environments.

Recommended topics include, but are not limited to, the following:

Future trends for required competencies and skills

- 21st century skills and competencies
- Job market insights for emerging markets
- International and European skills initiatives
- New professions for developing and sustaining smart environments

Deep Learning Skills

- Critical thinking skills
- Acquisition of entrepreneurial skills
- Innovation and creativity methods and techniques
- Teamworking and virtual teamworking
- Strategic thinking in the 21st century

Innovative ways to develop software for smart cities

- DevOps approach and its practices
- DevOps culture and challenges
- Continuous Integration and Continuous Development Pipelines
- Agile software development for smart cities
- Lean development models for software development

Learning how to develop smart cities

- Understanding smart cities frameworks
- Developing competencies of smart cities infrastructures
- Building smart cities models
- Service delivery in smart cities
- Learning to engage citizens
- Skills and competencies for smart cities
- Developing resilient smart cities
- Preserving privacy and security in smart cities

Submission Procedure

Researchers and practitioners are invited to submit until **April 15, 2021**, a chapter proposal of 1,000 words clearly presenting the concerns and the contents of his or her proposed chapter. The proposal should be submitted to the book editor (fitsilis@uth.gr). Authors will be notified by **April 30, 2021** about the status of their proposals and sent chapter guidelines. Full chapters are expected to be submitted by **July 30, 2021**. All submitted chapters will be reviewed on a single-blind review basis by 2 or more reviewers. Contributors may also be requested to serve as reviewers for this project.

Note: There are no submission or acceptance fees for manuscripts submitted to this book publication, *Building on smart cities skills and competences*. All manuscripts are accepted based on a double-blind peer review editorial process.

All chapters must be prepared in accordance with the submission guidelines for contributed books available at <https://www.springer.com/de/authors-editors/book-authors-editors/your-publication-journey> and must not exceed 6000 words, including bibliography and any appendix. They should be submitted through SMARTCITYCOMP21 web page at <https://easychair.org/conferences/?conf=smartcitycomp21>

Important Dates

April 15, 2021: Proposal Submission Deadline.
April 30, 2021: Notification of Acceptance
July 30, 2021: Full Chapter Submission
September 30, 2021: Review Results Returned
October 15, 2021: Final Acceptance Notification
December 12, 2021: Final Chapter Submission

Proposals only should be submitted to book editor (fitsilis@uth.gr)
Full chapters submission through SMARTCITYCOMP21 web page at
<https://easychair.org/conferences/?conf=smartcitycomp21>.

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