

Lecture Notes in Networks and Systems

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Preface

This book contains the written versions of most of the contributions presented during the International Conference on Partial Differential Equations and Applications, Modeling and Simulation organized by “Applied Mathematics and Scientific Computing Laboratory” and “Systems Engineering Laboratory”, at Sultan Moulay Slimane University Beni Mellal, Morocco, from June 1 to 2, 2021.

The workshop has provided a setting for discussing recent developments in a wide variety of topics including the partial differential equations, dynamic systems, optimization, numerical analysis, fuzzy sets theory, fractional calculus and its applications, to name the main topics. The workshop has brought together leading academic scientists, researchers, and research scholars to exchange and share their experiences and research results on all aspects of applied mathematics, modeling, algebra, economics, finance, and applications in various domains. It has also provided an interdisciplinary platform for researchers, practitioners, and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of the broadly perceived applied mathematics.

The chapters address various aspects that are of interest and concern for academic scientists, researchers, and research scholars in many fields, both in the sense of theoretical and applied challenges.

We hope that the various contributions of this book will be useful for researchers and graduate students in applied mathematics, engineering, physics, and even for other, notably practitioners in these and related fields. Some basis knowledge of analysis and control in systems theory and dynamical systems is just needed.

We wish to thank the authors for their interesting and novel contributions and the peer reviewers for their deep and insightful reviews which have greatly helped improve the papers included.

And last but not least, we wish to thank Dr. Tom Ditzinger and Mr. Holger Schaepe for their dedication and help to implement and finish this important publication project on time, while maintaining the highest publication standards.

Said Melliani
Oscar Castillo

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