



# Special issue on Advanced modeling for Systems Assurance Engineering

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The organizers of 4th international conference on Mathematical Techniques in Engineering Applications (ICMTEA2020) held in Dehradun, India on December 4–5, 2020 decided to bring out papers presented at the conference, in full, as a special issue of the International Journal of System Assurance Engineering and Management

As we are aware that modeling is one of the most efficient activities in software/ hardware development which gives efficient way to conceptualize, analyze and design any system. With the advancement of engineering, the systems are becoming complex and hence advanced modeling and system assurances in the systems analysis is becoming an important and essential areas of concern for industries. Needless to say that need of the hour for any system, be it hardware or software is to improve the trust worthiness in the era of competitiveness. For this, the solution is to go for the systems assurance engineering. The focus of selection of research papers in the special issue has been the aforesaid fact.

The articles selected after review for this special issue have advances and incremental researched in the areas of advanced modeling for systems assurance engineering.

The topics covered in this special issue are fully covered in the aim and scope of the International Journal of System Assurance Engineering and Management which includes: Complex System Analysis/Advanced Mechatronics and Robotics/ Artificial Intelligence and Autonomous Machines/ Assurance Techniques for Service-Oriented Systems/ Data Modeling & Semantic Engineering/Dependability and Reliability of Intelligent Systems/ Design Optimization Approaches/ Engineering Decisions under Uncertainty/ Engineering Design for Safety and Reliability/ Fault Diagnosis and Fault Tolerance/ Fault Tolerant System Design/ Intelligent Safety Systems/ Maintenance Strategies/ Operations Engineering and Analytics/ Predictive Modelling and Analytics/ Hybrid Multi Criteria Decision Making approach/ Probabilistic and Non-Probabilistic Safety Assessment/ Production Management/ Recycling and Reuse Management/ Reliability Modelling and Testing/ Safety-Critical and High Assurance Systems/ Software Quality Assurance and System Integration/ Software Reliability and Testing/ Stochastic Modelling/ Supply Chain Management.

Guest Editors are thankful to the Editor-in-Chiefs and Springer Nature Team for their kind support and suggestions for this special issue. It is hoped that this special issue of International Journal of System Assurance Engineering and Management will make a significant reference material and be of great use for Systems Assurance Engineering.

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