Call for Paper for fourth edition of Virtual Session on Advanced Engineering Systems and Computer Applications: theory and practice

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The session “Advanced engineering systems and Computer Applications: theory and practice” focuses on new results related to engineering researches as well as to rigorous mathematical and stochastic systems and their computer applications and carried out by using innovative models, methods and approaches. Recently, both advanced computer applications and novel approaches based on powerful stochastic analysis and computational methods, have been proven to be particularly effective in treating engineering, financial and population dynamics problems, to name a few of possible scenarios of interest. The aim of the Session is to collect the most relevant researches dealing with the aforementioned innovative approaches to solve typical problems arising in the fields of, e.g., Computer and Network Engineering, Numerical Modeling, Population Dynamics, Quantitative Finance, Energy production/management, Engineering Technological Applications, Material, Structure or Fluid dynamics. Topics of interest include, but are not limited to:

- High-Performance-Computing in engineering;
- Real-Time Systems
- Wireless and wired Networks Applications
- Cloud computing Systems
- Parallel computing Systems
- Artificial Intelligence
- Computation or analytical methods
- Numerical methods for S(P)DEs
- Hybrid systems and applications
- Neuronal Networks and applications
- Energy harvesting approaches
- Computational Fluid Dynamics
- Aerospace Applications
- Hydroinformatics
- Modelling and simulation
- Meshless methods applied to engineering fields
- Stochastic Processes
- Mathematical Finance
- Forecasting and Hedging in Energy Markets
- Stochastic Dynamics and Applications

**Important dates and registration fee:**

| Manuscript or extended abstract submission deadline: February 23, 2018 | Final version: March 12, 2018 |

This special session is a virtual symposium without physical participation, the registration fee is 300 EUR (150 EUR for additional paper), must be paid before April 12, 2017. More information: http://www.iccmse.org/registration.htm

**Proceedings**

Paper will be published in a Special Volume of the world-renowned AIP Conference Proceedings. The American Institute of Physics (AIP) Conference Series is a very well known series of Conference Proceedings, which is included in the leading databases of scientific & engineering literature including Inspec (an IEE product), Scitation, ISI Web of Knowledge, MathSciNet, Scopus, Scirus, Google Scholar, etc. We note that the Volumes of AIP Conference Proceedings are immediately available online.

1. Instructions to the authors can be found here: 8.5 x 11 inch, single-column instruction booklet and 8.5 x 11 inch single-column sample paper or here.
2. The .doc template file can be downloaded here. Users Guide can be downloaded here.
3. LaTeX guidelines can be downloaded here. Style files etc can be downloaded here.
4. General Guidelines, template and style files can be found here.

Procedure of the submission of a paper for the Proceedings of ICCMSE 2017:

- The author must send a completed submission form to the e-mail address of guest editors. The submission form can be found here. This is a required option for your participation in ICCMSE 2017.
- The author must prepare his/her paper or an extended abstract according to the instructions mentioned above, by using the template files or LaTeX style files given above. The length of the paper or extended abstract must be of 4-5 pages.
- The author must send his/her paper for review and final paper version to the e-mail address of session chairs.

The journals in which full papers of ICCMSE 2017 will be published are

- Journal of Numerical Analysis, Industrial and Applied Mathematics (JNAIAM) (ESCMSET),
- Journal of Mathematical Chemistry (Springer)
- Journal of Computational Methods in Sciences and Engineering (JCMSE)
- Applied Mathematics & Information Sciences (AMIS).
Session Chairs

1) Mario Collotta

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Mario Collotta received his PhD in 2011 from Catania University, Italy, on the topic of factory automation networks. Since 2010 he is an Assistant Professor with tenure in the Faculty of Engineering and Architecture at the Kore University of Enna, Italy, and in 2011 he becomes a principal researcher and director of the Computer and Networks Engineering Laboratory. His research interests concern the realization of strategies and innovative algorithms in order to ensure a flexible (the ability of the system to dynamically adapt to changes in its operating conditions, without need for reconfiguration) management of resources (band/CPU or resource allocation, battery consumption, etc.) in real-time systems and networks. He is a member of the IEEE and has published 2 book chapters, and over 60 refereed international journals and conference papers. He has served on several committees of distinguished journals and international IEEE conferences in the area of factory communication, industrial embedded systems and real-time systems, namely, IEEE Transactions, Elsevier and Springer Journals, Conferences of the IEEE Industrial Electronics Society, IEEE International Energy Conference, and others. In the past, he has collaborated with several organizing committee and program committee. He is currently an Associate Editor of some Elsevier and Springer Journals. He has also served as a Guest Editor and Lead Guest Editor of several special sections and special issues focused on the study of real-time networks, systems and application.

2) Giovanni Pau

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Giovanni Pau is an assistant professor at Faculty of Engineering and Architecture, Kore University of Enna, Italy. He received his Bachelor degree in Telematic Engineering from University of Catania, Italy; and his Master’s degree (cum Laude) in Telematic Engineering and PhD from Kore University of Enna, Italy. Prof. Pau has published more than 35 papers in journals and conferences and authored 1 book chapter. He serves as Associate Editor of Journal of Network and Computer Applications (Elsevier), Wireless Communications and Mobile Computing (Hindawi) and Human-Centric Computing and Information Sciences (Springer). Moreover, he serves/served as a leading Guest Editor in several special issue for Energies (MDPI), Sensors (MDPI) and Wireless Communications and Mobile Computing (Hindawi). He collaborates/collaborated with the organizing and technical program committees of several conferences in order to prepare conference activities and is serving as a reviewer of several international journals and conferences. His research interests include wireless sensor networks, soft computing techniques, home automation and real-time systems.

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Luca Di Persio holds an Assistant Professor position within the College of Mathematics, which is part of the Computer Science Department of the University of Verona, Italy. He took his PhD in Mathematics at the University of Trento, also holding the Doct. Rer. Natualium title of the Bonn University. He is an expert in Probability theory, Stochastic Processes and applications in Mathematical Finance, as witnessed by his several publications on the subjects. He acts as a reviewer for various international journals and he has organized various conferences, courses and schools during recent years, being also a member of the PhD College of Mathematics of the University of Verona in collaboration with the Mathematics Department of the University of Trento. More info and an updated list of publications can be found here: www.di.univr.it/?ent=persona&id=8773&lang=en

4) Mauro De Marchis

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Mauro De Marchis is Assistant Professor at the University of Enna "Kore", faculty of Engineering and Architecture, in the SSD ICAR/01: Hydraulic Engineering. (since may 2010). He is responsible of the Environmental Hydraulic Laboratory at the University of Enna KORE. At the present he is teacher of Hydraulic Engineering at the course of Civil and Environmental Engineering. He is author of several papers on international and national reviews on issues related to hydraulic engineering, with regard to management and design of water distribution network, environmental hydraulic and computational fluid dynamic in turbulent flow fields. His research activities regards advanced in water distribution network. In particular, his research activities concerns the experimental and numerical analysis devoted to the control and detection of the leaks. He has participated (as Principal Researcher) in different National and European Project having as main topics the urban water and the environmental fluid mechanics. In his recent research activity Mauro De Marchis carried out numerical experiments on Lagrangian dispersion of contaminated marine sediments. Mauro De Marchis is one of the developers of the software open source PANORMUS (PArallel Numerical Open souRce Model for Unsteady flow Simulations; http://www.panormus3d.org) a finite-volume numerical tool aimed at resolving the 3D momentum equations for incompressible fluids using curvilinear non-orthogonal grids.

5) Antonio Messineo

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Antonio Messineo was appointed Full Professor in Environmental Applied Physics at the University of Enna “Kore” in may 2015. He is Head of School of Civil Engineering and Director of Energy & Environment Lab at the University of Enna “Kore”. He was previously Assistant Professor and later Associate Professor at the University of Enna since 2010. He is author of more than 100 scientific papers with more than 50 papers on international journals. His main research topics are related to energy and environmental planning, refrigerating engineering, renewable energies, energy and building. At the moment, his research interests are mainly related to the energetic valorization of biomass. He participated to numerous research projects at national and European level mainly related to energy and environmental planning, renewable energies.