

# The International Multi-Conference on Systems, Signals and Devices

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## Special Session on

## Nanotechnology and Applications

### Organized by

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### Call for Papers for Special Session

The special session Nanotechnology and Applications will encompass different areas in relation to the fundamental physics, chemistry, biology and technology of nanosized and nanostructured materials. Nanomaterials describe, in principle, materials of which a single unit small sized between 1 and 100 nm. By the integration of nanomaterials in hard inorganic materials and soft including polymeric and biological, diversity of nanocomposites can be realized having interesting electrical, mechanical, and thermal properties that could be used for several outstanding applications.

This special session aims to emphasis synthesis, characterization, functionality, processing and preparation for implementation in systems and devices of the nanomaterials for manifolds applications such as electronic, sensors, energy conversion and storage and biotechnology.

#### Topics of interest include, but are not limited to:

- Nanoparticles and nanocrystals
- Nanostructured and nanoarchitecture materials
- Nanocarbons (e.g. carbon dots, graphene, nanotubes, fullerenes)
- Nanocomposite materials and properties
- Films, membranes, coatings, surfaces, and interfacial material
- Electronics and sensing
- Biotechnology
- Energy conversion and storage (e.g. solar cells, energy harvesting, batteries)

#### Technical sponsors (if any):

- There are no sponsors for this session.

▪ **Short biography of the Special session Organizers (photo, name, email, and short Presentation of the organizer)**



**Dr. Ayda Bouhamed**

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Dr.-Ing. Bouhamed has obtained her electro-mechanical engineering diploma in 2012 from the National Engineering School of Sfax, Tunisia. She got her doctoral degree in electrical engineering from Chemnitz University of Technology, Germany in 2018. She is currently working as senior research assistant at the chair for Measurement and Sensor Technology (MST). Her research interest includes the development of smart sensors based on carbonaceous materials such as pressure, strain and environmental sensors using nanomaterials as well as polymer composites for realization of nanogenerators for harvesting energy.

**Dr. Jose Roberto Bautista Quijano**

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Dr. Bautista is specialized in nanocomposite-based sensor. BS in Mechatronics by the Autonomous University of Yucatan and MS in Polymer Science by the Scientific Research Center of Yucatan, Mexico. Got his PhD in Mechanical Engineering and Science with focus on polymer composites at the Dresden University of Technology in 2018. Since then, he is a research associate at MST and expert in sensor fabrication based on polymer composite materials filled with carbon nanoparticles, their processing techniques and composite characterization.

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