

**16th International Symposium on Functionally Graded Materials, Hartford, Connecticut, USA
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Mini-Symposium Title: Multifunctional Surface Materials for Sustainable Infrastructure

Organizers:

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Description:

Many of today's critical civil infrastructure systems, especially most aging systems, do not meet basic contemporary urban function requirements in terms of safety and capacity. Moreover, performance requirements for the infrastructure may change with population dynamics, national security needs, climate change impacts, infrastructure age, etc. Considering the complex aging mechanisms and construction constraints of large infrastructure, a holistic approach is sought to renew infrastructure surfaces with penetrating depths and effectively extend the service-life of infrastructure, through which the interactions and potential synergies between the various material and structural behaviors need to be properly understood, modeled, and exploited, while eliminating or minimizing any potentially detrimental consequences or interactions. Multifunctional surface materials can be a novel and practical solution to those critical needs. This mini-symposium provides an excellent platform to exchange the cutting-edge research in this theme. The interested topics include but not limited to:

- Functionally graded building materials
- Self-sensing, self-healing, self-heating materials
- Multifunctional surface materials for civil infrastructure
- Adaptive smart surface materials
- Meta-surface coatings
- Road materials (asphalt and concrete)