



## Session description

Chairperson name: Prof. Lekatou Angeliki

Affiliation: University of Ioannina, Greece

Title of the session: Environmental degradation, corrosion and wear

Objectives: The session covers fundamental and applied issues of environmental surface degradation and durability of materials at macro-, micro-, and nano-scale. Emphasis will be given on cutting-edge research, material design and development against degradation, understanding of degradation mechanisms and protection evaluation/design.

Main topics include:

- Structural stability under aggressive environments, structure-durability relationship, environmental effects on ceramics, polymers and composites, durability of concrete structures, durability of ceramics, and others
- Corrosion forms and mechanisms, coatings and surface engineering, tribocorrosion, high temperature corrosion, corrosion protection and inhibition, non-destructive testing, electrochemical techniques, corrosion of steel in concrete, corrosion modelling, marine corrosion, and others
- Wear types (sliding, abrasion, high temperature, fretting, lubricating wear), wear modes, understanding of tribological phenomena, wear testing, erosion-corrosion, solid particle erosion, wear of metals, ceramics, polymers and composites, and others