

Dan M. Frangopol 博士浙江大学客座教授聘任仪式

暨学术报告会

时间：2017 年 5 月 18 日（周四）下午 14:30-16:30

地点：紫金港校区安中大楼 A326 会议室

讲座题目：Risk- and Sustainability-Informed Decision Making for Civil Infrastructure in a Life-Cycle Multi-Objective Optimization Context.

报告人：Dan M. Frangopol 教授



报告简介：

Our knowledge to model, analyze, design, maintain, monitor, manage, predict and optimize the life-cycle performance of structures and infrastructures under uncertainty is continually growing. However, in many countries, including the United States, the civil infrastructure is no longer within desired levels of performance. Decisions regarding infrastructure systems should be supported by an integrated risk-, resilience- and sustainability-based life-cycle multi-objective optimization framework by considering, among other factors, the likelihood of successful performance and the total expected cost accrued over the entire life-cycle. The primary objective of this keynote lecture is to present a framework for risk-, resilience- and sustainability-informed decision making for structural systems and networks in a life-cycle multi-objective optimization context. Risk-based performance metrics allow

engineers to combine the probability of structural failure with the consequences corresponding to this event. The sustainability performance metric is established considering the risks associated with economic, social, and environmental impacts, utility theory, and the decision maker's risk attitude. Applications include time-variant reliability, risk, resilience, and sustainability of bridges, bridge transportation networks, and interdependent infrastructure systems under multi-hazards.

报告人简介:

Dan M. Frangopol 博士是美国 Lehigh 大学 Fazlur R. Khan 结构和建筑工程学院的主席教授。在 2006 年加入 Lehigh 大学之前，他曾任科罗拉多大学 Boulder 分校土木工程教授，现任荣誉教授。1976 年，他从比利时 Liège 大学获得应用科学博士学位。

Frangopol 教授被公认为土木工程和海洋工程全寿命周期领域的领导者，享有很高的国际学术声誉。他的主要研究领域是将概率概念和方法应用于土木工程和海洋工程，包括结构可靠性，基于概率的房屋、桥梁和船只的设计和优化，结构健康监测，基于不确定性下的结构和基础设施全寿命性能维护和管理，基于风险的评估和决策，基础设施的可持续性和灾难恢复力以及地震力学。

Frangopol 教授是国际桥梁维护和安全协会 (IABMAS) 和国际全寿命周期土木工程协会 (IALCCE) 的创会主席。他撰写/共同撰写了 2 本书，40 篇书籍章节，300 余篇档案期刊，其中包括 9 篇获奖论文，以及许多会议论文。他是 Structure and Infrastructure Engineering 的创刊主编。他获得了 ASCE, IABSE, IASSAR 等专业组织的多种奖项，如 OPAL 教育领导者奖, Newmark 奖章, Alfredo Ang 土木基础设施工程风险分析和管理奖, T.Y.Lin 奖章, F. R. Khan 奖章和 Croes 奖章 (两次)。他拥有 4 个荣誉博士学位和 12 所大学的荣誉教授。他是欧洲研究院 (伦敦欧洲研究院) 和比利时皇家科学与艺术学院的外籍成员，罗马尼亚技术科学院荣誉会员，以及 ASCE 的杰出成员。