

**DEPARTMENT OF CHEMISTRY AND ENVIRONMENTAL
SCIENCE
VIRTUAL SEMINAR SERIES
SPRING 2021**

DATE: WEDNESDAY, JANUARY 27

TIME: 12:30-1:50pm

LOCATION:

<https://njit.webex.com/njit/j.php?MTID=mdfe4f718778e9a7ffb4eefa8ea5acb98>

Meeting number: 1202085541

Meeting password: yaP9itPpR74

Join by video system:

Dial [1202085541@njit.webex.com](tel:1202085541)

You can also dial 173.243.2.68 and enter your meeting number

Join by phone:

1-650-479-3207 Call-in toll number (US/Canada)

GUEST SPEAKER

Bryan W. Brooks

Distinguished Professor

Department of Environmental Science

Director of Environmental Health Science

Baylor University

Waco, Texas

TOPIC

Identifying Strategic Research Needs for Environmental Quality and
Environmental Public Health Practice

ABSTRACT

What are the big research needs to achieve more sustainable environmental quality? The United Nations' Sustainable Development Goals provide a global framework to assist in advancing a more sustainable future for all people while protecting natural resources, but degradation of environmental quality decidedly challenges achieving these noble Goals. Studies of environmental quality have often been reactionary, responding to the newest disease, impaired ecosystem or species, and class of understudied chemical, physical or biological stressors. Though horizon scanning efforts provide opportunities to anticipate future priorities, rarely have strategic prospective approaches been initiated to identify global environmental quality research needs.

The Global Horizon Scanning Project was launched (Brooks et al. 2013) in collaboration with the Society of Environmental Toxicology and Chemistry, a

leading global environmental science organization with geographic units uniquely positioned in Africa, Asia-Pacific, Latin America, Europe and North America (www.setac.org). We further partnered with the Environmental Chemistry and Agrochemicals Divisions of the American Chemical Society (www.acs.org) in North America. Key research questions were solicited from scientists and engineers from multiple sectors and disciplines, then synthesized by expert teams of academic, industry and government representatives in each global region to form lists of the top research

questions that, if answered, would substantially advance our understanding of how a range of environmental stressors (chemical, physical, biological) affect environmental quality. This project was thus intentionally designed to be bottom up, transparent, multidisciplinary, and inclusive of multiple stakeholders, and has subsequently informed strategic funding decisions. In addition to scientific research needs related to environment and health, translational research has not systematically understood challenges and opportunities from environmental public health practitioners, particularly at the national scale. Environmental public health, a foundational area of public health, provides critical services and important activities for promoting safe and healthful communities. UNCOVER-EH (Understanding Needs, Challenges, Opportunities, Vision and Emerging Roles in Environmental Health) was initiated with the Centers for Disease Control and Prevention in partnership with the National Environmental Health Association to characterize and assess state, tribal, local, and territorial environmental public health practitioners and their practice in the United States. After receiving input from over 1700 environmental public health professionals working in health departments of the United States, synthesis workshops with focus groups identified timely problem statements associated with common environmental public health program areas and practice resource needs in various categories. Such a unique is resulting in a diverse benefits that span across the levels of national government and other countries by reaching leaders and decision makers within non-governmental organizations, private industry, and other sectors. More information on UNCOVER-EH can be found here: www.cdc.gov/nceh/ehs/uncover-eh/index.html

BIO

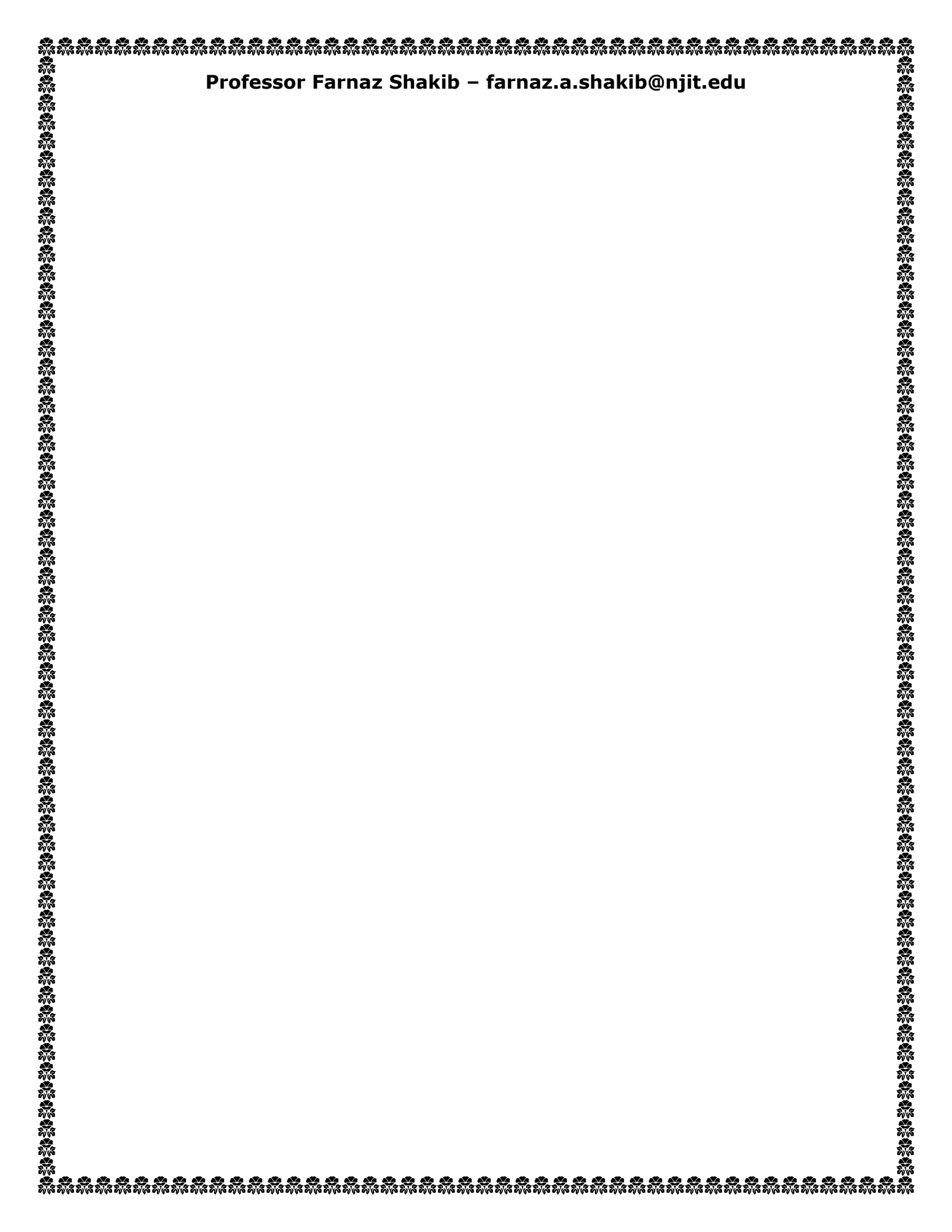


Bryan W. Brooks is Distinguished Professor in the Department of Environmental Science, and Director of Environmental Health Science at Baylor University, Waco, Texas, USA. He also serves as visiting Pearl River Scholar Chair Professor at Jinan University in Guangzhou, China, and as visiting professor at the University of South Bohemia in Vodnany, Czech Republic. Prof. Brooks' research focuses on water quality and reuse, developing approaches to define and manage chemical hazards and risks, environmental, aquatic and comparative toxicology and pharmacology, environmental and green chemistry, environmental public health, and the ecology, chemistry and toxicology of harmful algae blooms.

He has published over 240 manuscripts, and is a Fellow of the Society of Environmental Toxicology and Chemistry and the Royal Society of Chemistry. Prof. Brooks serves as Editor-in-Chief of *Environmental Science & Technology Letters* (American Chemical Society Publications).

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