Statement on Candidacy for AOGS Ocean Science Section President

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The Asia-Oceania Geosciences Society (AOGS), in partnership with the American Geophysical Union (AGU) and the European Geosciences Union (EGU), encourages geoscientists and students to unveil the mysteries of earth and atmospheric sciences globally. Being a passionate oceanographer with a deep sense of responsibility towards the advancement of geophysics and related fields, I am honored to be nominated as a candidate for the Ocean Sciences Section President.

For almost 30 years, I have been focusing on estuarine and coastal ocean dynamics and resilience, addressing topics such as storm surge modeling, wave dynamics, plume dynamics, wave-current interactions, and ecological modeling. I earned a Bachelor's degree from Ocean University of China in 1999, a Master's degree from The First Institute of Oceanography, China State Oceanic Administration in 2002, and a Ph.D. from North Carolina State University in 2007. I currently serve as a full professor at the University of Maryland Eastern Shore (UMES). My previous roles include serving as a research investigator at the NOAA Great Lakes Environmental Research Laboratory/University of Michigan, and water resources scientist at Dynamics Solutions LLC, an environmental consulting firm.

As an active graduate faculty member in the University System of Maryland's Marine Estuarine Environmental Sciences (MEES) program, I have mentored four Ph.D. students, all of whom have returned to their home countries in Asia and are actively contributing to the scientific community through publications and leadership roles. My current diverse research team includes two postdoctoral researchers from India, four Ph.D. candidates from China, Bangladesh, and Iran, three M.S. students from Bangladesh, and three incoming students from Nepal, Iran and USA respectively. Additionally, I have hosted over 20 visiting scholars from Asia and have served on thesis committees for more than 10 graduate students across the USA and Asia. These relationships reflect my long-standing commitment to mentoring early-career scientists and fostering international collaboration, especially across Asia.

I have developed hydrodynamic and ecological models incorporating climate change factors to forecast potential impacts on Maryland's coastal lagoons, Chesapeake Bay, Lake Erie, and Lake Michigan. In collaboration with my former Ph.D. students, I contributed to the modeling studies in the Bohai Sea of China, yielding eight co-authored publications in high-impact journals.

I have been invited to deliver talks at AOGS conferences and various institutions across Asia and have remained committed to strengthening ties between oceans and oceanographers globally. Additionally, I serve as an associate editor for the journals "Estuarine, Coastal and Shelf Science" and "Progress in Oceanography", handling numerous submissions annually, many from Asia. I also organize and chair conference sessions, including the AGU Fall Meeting and the Coastal & Estuarine Research Federation (CERF), which feature strong participation from Asian researchers and young scientists.

If elected as the President of the Ocean Sciences Section of AOGS, I will dedicate myself to expanding AOGS's reach and participation, especially by encouraging scientists, early career professionals, and graduate students from the Asia-Oceania region and beyond to actively engage with the Ocean Sciences section and contribute their unfolding research. I am committed to advancing the mission of AOGS and supporting our community through inclusive leadership, scientific excellence, and sustained international engagement. My vision is to help make the Ocean Sciences section a hub of innovation and connectivity, where knowledge is actively exchanged across borders, disciplines, and generations. I want to ensure that AOGS continues to be a platform where young scientists feel empowered, senior researchers feel engaged, and collaborative partnerships flourish across regions. In brief, I aim to:

- **Promote interdisciplinary sessions in ocean science at AOGS meetings:** Encourage the development of conference sessions that bridge multiple disciplines within ocean sciences, including physical, biological, and chemical oceanography.
- **Integrate modern technologies like AI into fundamental research:** Promote the use of AI-driven approaches in fundamental ocean science research to accelerate discoveries and innovation.
- **Enhance AOGS's visibility in North America:** Increase the presence and recognition of AOGS within the North American ocean science community, building stronger connections with researchers and institutions outside the Asia-Oceania region.
- **Encourage greater international collaboration:** Expand outreach and improve participation in AOGS annual conferences, fostering stronger collaboration between ocean scientists across different countries and regions.
- **Empower aspiring authors and young scientists:** Connect early-career researchers with journal editorial boards and publishing houses to enhance their publication opportunities and professional development.
- **Launch an AOGS Ocean Sciences mentorship program:** Establish a structured mentorship initiative to pair early-career researchers with established scientists to foster career guidance and skill development.
- **Initiate a year-round virtual seminar series:** Offer accessible, online events to maintain engagement and highlight new research from underrepresented regions and institutions in Asia.
- **Promote open-access and collaborative data platforms:** Facilitate data sharing and interdisciplinary modeling efforts to advance collective research outputs.

I would be honored to serve the AOGS community and collaborate with you to achieve these goals. Thank you for your consideration and support.