

To: Patrick J. Wolfe, Provost and Executive Vice President for Academic Affairs and Diversity

From: Arvind Raman, John A. Edwardson Dean of the College of Engineering *Arvind Raman*

Date: June 20, 2023

Subject: **Recommendation of Rao S. Govindaraju for the Christopher B. and Susan S. Burke Distinguished Professor of Civil Engineering**

Dr. Rao S. Govindaraju is a highly accomplished and internationally renowned scholar in the field of hydrology. His extensive research and contributions have significantly advanced the understanding and application of stochastic hydrology, particularly in the areas of heterogeneity, uncertainty, and climatic influences. He has played a crucial role in introducing artificial neural networks (ANNs) and later machine learning approaches to hydrologic applications.

Dr. Govindaraju's work spans various aspects of hydrology, including surface and subsurface hydrology, contaminant transport, watershed hydrology, and the study of droughts. His theories, numerical models, laboratory experiments, and field investigations have enhanced our understanding of infiltration, run-on processes, and the use of copulas and hidden Markov models for drought analysis.

His research has achieved practical applications and societal impacts. For example, his EPA-funded project on reconstructing continuous water quality records has been employed by state agencies for TMDL planning. In the state of Kansas, his work on water rights has informed water management policies for almost two decades. His innovative tools for short-term predictions of water shortages and drought recovery probabilities have been adopted worldwide, benefiting water resource management. Additionally, his work has been utilized by the EPA and state agencies to assess the health of water bodies.


The impact of Dr. Govindaraju's work is reflected in his extensive publication record, which includes over 150 journal articles, 24 book chapters, 2 monographs, and 2 edited books. Several of his papers have received significant citations and recognition. His contributions to ANNs in hydrology have garnered over 1000 citations each, while his papers on droughts have been downloaded over 13,000 times since 2011. His book, "Artificial Neural Networks in Hydrology," has received over 650 citations on Google Scholar. Additionally, his integrated modeling paper on the Rattlesnake Creek Basin has been cited over 300 times. Furthermore, Dr. Govindaraju's mentorship has shaped the careers of numerous graduate students who have gone on to become faculty members at major universities, making their own impactful contributions to the field.

Dr. Govindaraju's leadership and influence extend beyond his research contributions. He has served as the Editor-in-Chief of the Journal of Hydrologic Engineering for 10 years and held the presidency of the American Institute of Hydrology (AIH). In recognition of his visionary research leadership, creativity, and impacts, Dr. Govindaraju has received numerous prestigious awards. These include the Csallany-Zaporoze-Kanivetsky (Founders) Award from the American Institute of Hydrology in 2019, the Distinguished Member and Ven Te Chow Lifetime Achievement Award from ASCE in 2019, the Arid Lands Hydraulic Research Prize in 2009, and the Walter L. Huber Civil Engineering Research Prize in 2004, among others. He is a Fellow of ASCE and a Diplomat of the Academy of Water Resources Engineers. His papers have also received several best paper awards from reputable conferences and journals.

The Civil Engineering Primary Committee voted 18 – 1 in support of a nomination for Distinguished Professorship. No comment was left explaining the rationale for the "no" vote. The Ad Hoc committee voted 5-0 unanimously in support of recommending Dr. Govindaraju for Distinguished Professorship.

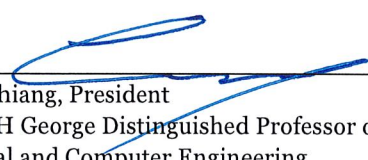
Based on Dr. Govindaraju's exceptional research contributions, leadership in the hydrologic engineering community, and widespread recognition, I highly recommend him for the Christopher B. and Susan S. Burke Distinguished Professor of Civil Engineering position. His expertise, experience, and dedication make him an outstanding candidate for this prestigious role.

Approval Recommended

  
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Patrick J. Wolfe, Provost and Executive Vice President  
For Academic Affairs and Diversity

7/17/23  
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Date

Approved:

  
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Mung Chiang, President  
Roscoe H George Distinguished Professor of  
Electrical and Computer Engineering

7.18.2023  
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Date

Cc  
Luna Lu  
Brittany Vestal  
Milind Kulkarni  
Amanda Van Meter