

2022-2023 BOR Research Award Committee Report

Chair:

Viatcheslav Naoumov, Engineering, (860)-832-1820, naoumovvii@ccsu.edu

Members:

Thomas King, Biomolecular Science;

Christopher Lee, Management and Organization;

Krishna Saha, Mathematics;

Karen Ritzenhoff, Communication;

Actions / Timeline:

1. BOR Award nominations were received from Jaclyn Dahn, Assistant to Provost on 01/06/2023;
2. Committee members reviewed applications and e-mailed scores along with their comments to Viatcheslav Naoumov by 01/15/2023;
3. V. Naoumov compiled the evaluation scores and shared completed evaluation chart along with compiled comments by 01/17/2023;
4. Time slots for the Committee meeting were proposed by 01/17/2023;
5. The results regarding the candidate were unanimous and thus, the committee members didn't need to hold another meeting;
6. Draft Nomination Letter was prepared and shared with committee for editing by 01/18/2023;
7. Comments and improvements to the draft letter were received by 01/19/2023;
8. All improvements were accepted and updated Nomination Letter was e-mailed to the Provost Kostelis by 01/19/2023 (following the requested deadline – 01/20/2023)

Please see the Committee's final recommendations on the following page:

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To: Kim Kostelis, CCSU Interim Provost & Vice President for Academic Affairs
Tom Burkholder, President, CCSU-AAUP
Fred Latour, President, CCSU Faculty Senate

From: The BOR Research Award Committee

(Viatcheslav Naoumouv, Thomas King, Christopher Lee, Krishna Saha, and Karen Ritzenhoff).

Re: Central Connecticut State University Board of Regents Faculty Research Award 2022-23

The CCSU BOR Research Award Committee has evaluated the submitted nominations. The four categories we used in our evaluation are the following: actual or potential impact of research/creative work in the relevant professional field; the quality of a venue of a scholarly publication or other form of public evidence of research/creative work specific to the field; actual or potential impact of research/creative work on improving teaching/learning, and actual or potential impact of research/creative work on university image in the related field.

The Committee recommends Dr. Rahul Singhal, Associate Professor, CCSU Department of Physics and Engineering Physics, as the recipient of the 2022-23 BOR Faculty Research Award for the CCSU.

Dr. Rahul Singhal joined CCSU as an adjunct Assistant Professor in Fall 2015. He was hired as a tenure track Assistant Professor of Physics in Fall 2017 and promoted to the Associate Professor status in 2020.

Dr. Singhal's area of interest is in sustainable energy storage systems. His focus is in the critical area of high energy density batteries and supercapacitors, a field of great importance. As humanity moves toward clean energy production, the understanding of indispensable need for stationary and portable high density energy storage systems is key. This concerns such items as rechargeable batteries and supercapacitors for electronic and electric devices: cell phones, iPads, laptops, smart watches, toys and also power tools and hybrid electric vehicles.

Dr. Singhal researches the synthesis of materials and nanomaterials and fabrication and characterization of energy storage devices and thereby addresses multiple aspects of important problem of energy storage. The nature of his work testifies to the high relevance of his scholarship as well as the current and potential impact in the field.

Dr. Singhal has an impressive publication record of cutting-edge scholarly works. In the last five years alone, he has published and co-authored 24 research papers in highly respected peer-reviewed journals. A book chapter in "Conducting Polymers for Advanced Energy Applications" was published in 2021 by CRC Press, one of the top engineering and science publishing houses in the United States of America. Eight (8) out of 24 research papers were published in 2022. He also presented 25 papers at various

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national and international conferences, some of them with students. Dr. Singhal collaborates extensively with fellow scholars in his field at CCSU and internationally. Over 2000 citations, according to Google Scholar, confirm Dr. Singhal's considerable contribution in the field and recognition of his achievements by researchers and practitioners.

Dr. Singhal's research agenda impacts not only his discipline but also has a broader impact through his training of future scientists. He leads and directs CCSU students in his research projects, writes co-authored papers with his students and guides them to develop valuable analytical skills. They will become creative and independent scholars and practitioners. Dr. Singhal and his students are very active at the American Physical Society of New England.

Dr. Singhal also developed two research facilities: one for the synthesis of materials/nanomaterials and a second for the fabrication and characterization of energy storage devices.

It is important to emphasize that Dr. Singhal collaborates with domestic and international researchers. He conducts his studies at CCSU, collaborates with researchers at Southern Connecticut State University, Pittsburg State University, University of Puerto Rico, and internationally with the Indian Institute of Technology and Chaudhary Charan Singh University.

The CCSU BOR Research Award Committee unanimously agreed on his candidacy. We believe that Dr. Singhal deserves the 2022-23 BOR Faculty Research Award for CCSU as an acknowledgement of his outstanding work.

On behalf of the Board of Regents Research Award Committee,



Dr. Viatcheslav Naoumov, Professor of Mechanical and Aerospace Engineering,

BOR Research Award Committee Chair.