PURDUE UNIVERSITY | College of Engineering

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 Mohammad Ashraful Alam to be named the Jai N. Gupta Distinguished Professorship of Electrical and Computer Engineering**

Dr. M. Ashraful Alam is a highly accomplished professor of Electrical and Computer Engineering. His contributions span various areas, including semiconductor reliability, nanobiosensors, and atom-to-farm modeling of solar cells. Notable achievements include his work on gate dielectric reliability, enabling the scaling of devices to unprecedented sizes. He has also made significant advancements in carbon nanotube transistors and transparent conductors. Dr. Alam's expertise combines the mindset of a theoretical physicist with the practical orientation of an engineer, making him a unique and exceptional researcher in electronic materials and devices.
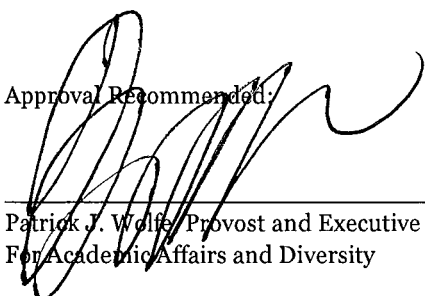
Dr. Alam's research has been widely cited and has influenced the field significantly. His work on nanobiosensors has established a universally accepted theory for analyte detection at ultra-low concentrations. Moreover, his atom-to-farm model has defined the potential of emerging solar cell technologies for renewable energy, with his publications being highly cited in the field.

In addition to his research contributions, Dr. Alam is an outstanding educator actively involved in the renowned nanoHUB remote learning framework. He has made substantial contributions to semiconductor device technologies, benefiting hundreds of thousands of students worldwide. His work has garnered international recognition, as evidenced by prestigious awards such as the Institute of Electrical and Electronics Engineers (IEEE) Electron Device Society Education Award, the IEEE Kiyo Tomiyasu Medal, and the Semiconductor Research Corporation Technical Excellence Award.

The ECE Primary Committee voted 20 – 1 in support of recommending Dr. Alam for Distinguished professor. No rationale was noted for the "no" vote. The Ad hoc committee voted unanimously 5-0 in favor of Dr. Alam's recommendation.

Considering his substantial contributions, extensive expertise, and recognition within the scientific community, I wholeheartedly recommend Dr. Ashraful Alam be named the Jai N. Gupta Distinguished Professor of Electrical and Computer Engineering. His comprehensive knowledge and practical approach make him an invaluable asset to any academic institution.

Approval Recommended:

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

9/19/23
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Date

Approved:

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

Cc
Luna Lu
Brittany Vestal
Milind Kulkarni
Amanda Van Meter