

# **Supriyo Bandyopadhyay, Ph.D.**

**Commonwealth Professor, Department of Electrical and Computer Engineering at VCU  
College of Engineering**

Richmond, VA, US

Professor Bandyopadhyay has authored and co-authored over 400 research publications

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## **Biography**

Supriyo Bandyopadhyay is Commonwealth Professor of Electrical and Computer Engineering at Virginia Commonwealth University. He received a B. Tech degree in Electronics and Electrical Communications Engineering from the Indian Institute of Technology, Kharagpur, India; an M.S degree in Electrical Engineering from Southern Illinois University, Carbondale, Illinois; and a Ph.D. degree in Electrical Engineering from Purdue University, West Lafayette, Indiana. He spent one year as a Visiting Assistant Professor at Purdue University, West Lafayette, Indiana (1986-87) and then nine years on the faculty of University of Notre Dame. In 1996, he joined University of Nebraska-Lincoln as Professor of Electrical Engineering, and then in 2001, moved to Virginia Commonwealth University as a Professor of Electrical and Computer Engineering, with a courtesy appointment as Professor of Physics. He directs the Quantum Device Laboratory in the Department of Electrical and Computer Engineering. Research in the laboratory has been frequently featured in national and international media. Its educational activities were highlighted in a pilot study conducted by the ASME to assess nanotechnology pipeline challenges. The laboratory has graduated many outstanding researchers who have won numerous national and international awards. Prof. Bandyopadhyay has authored and co-authored over 400 research publications and presented over 150 invited or keynote talks at conferences and colloquia/seminars across four continents. He is the author of three popular textbooks, including the only English language textbook on spintronics. He is currently a member of the editorial boards of ten international journals and served in the editorial boards of ten others in the past. He has served in various committees of ~100 international conferences and workshops. He is the founding Chair of the Institute of Electrical and Electronics Engineers (IEEE) Technical Committee on Spintronics and past-chair of the Technical Committee on Compound Semiconductor Devices and Circuits. He was an IEEE Electron Device Society Distinguished Lecturer (2005-2012) and an IEEE Nanotechnology Council Distinguished Lecturer (2016, 2017). He is a past Vice President of the IEEE Nanotechnology Council (in charge of conferences) and current Vice President in charge of publications. He served in the IEEE Fellow Committee (2016-2018). Prof. Bandyopadhyay is the winner of many awards and distinctions.

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## **Industry Expertise**

Education/Learning, Research

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## **Areas of Expertise**

Self-assembly of Regimented Nanostructure Arrays, Spintronics, Quantum Devices, Hot Carrier Transport in Nanostructures, Nanoelectronics, Quantum Computing, Nanomagnetism, Computing Paradigms, Optical Properties of Nanostructures, Coherent spin transport in Nanowires for Sensing and Information Processing, Nanowire-based Room Temperature Infrared Detectors

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## **Affiliations**

American Physical Society, The Electrochemical Society, American Association for the Advancement of Science, Institute of Electrical and Electronics Engineers: Past Vice President of Nanotechnology Council, Past Associate Editor of IEEE Transactions on Electron Devices, Past Chair of the Technical Committee on Compound Semiconductor Devices and Circuits, Founding Chair of the Technical Committee on Spintronics, Institute of Physics (UK): Editorial Board Member of the journals Nanotechnology and Nano Futures

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## **Education**

### **Purdue University**

Ph.D. Electrical Engineering

### **Southern Illinois University**

M.S. Electrical Engineering

### **Indian Institute of Technology, Kharagpur**

B.Tech Electronics and Electrical Communications Engineering

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## **Accomplishments**

### **University Award of Excellence**

Virginia Commonwealth University faculty award for performing in a superior manner in teaching, scholarly activity and service. One award is given to one faculty member in the University in any year. It is one of the highest awards the University can bestow on a faculty member. Dr. Bandyopadhyay is the only recipient of this award in the history of the College of Engineering.

### **Virginia's Outstanding Scientist**

Named by the Governor of the State of Virginia, 2016. One of two recipients in the State of Virginia in 2016. This award is given across all fields of engineering, science, mathematics and medicine.

### **Electrical and Computer Engineering Lifetime Achievement Award, VCU**

Department of Electrical and Computer Engineering, Virginia Commonwealth University, 2015. One of two such awards given in the department's history.

### **Distinguished Scholarship Award, Virginia Commonwealth University**

Virginia Commonwealth University faculty research award, 2012. This is the highest award given by the University for research and scholarship. One award is given to one faculty member in the University in any year. The recipient is picked from all disciplines of science, humanities, business, education, social science, engineering and medicine in the University.

**Interdisciplinary Research Award, University of Nebraska-Lincoln**

Given jointly by the College of Engineering, the College of Science, and the Institute for Agricultural and Natural Resources at University of Nebraska-Lincoln

**IBM Faculty Award**

International Business Machines, 1990

**College of Engineering Service Award, University of Nebraska-Lincoln**

College of Engineering, University of Nebraska-Lincoln, 1999

**College of Engineering Research Award, University of Nebraska-Lincoln**

College of Engineering, University of Nebraska Lincoln, 1998

**Distinguished Alumnus Award, Indian Institute of Technology, Kharagpur, India**

One of seven industry, government and academic leaders worldwide honored with this award in 2016. All are alumni of Indian Institute of Technology, Kharagpur.

**Fellow of the Institute of Electrical and Electronics Engineers (IEEE)**

Citation: For contributions to device applications of nanostructures

**Fellow, American Physical Society**

Citation: For pioneering contributions to device applications of nanostructures.

**Fellow of the Electrochemical Society**

In recognition of the contributions to the advancement of science and technology, for leadership in electrochemical and solid state science and technology and for active participation in the affairs of the Electrochemical Society

**Fellow of the Institute of Physics**

For outstanding contributions to physics of nanostructured devices.

**Fellow of the American Association for the Advancement of Science**

For pioneering contributions to spintronics and device applications of self assembled nanostructures

**State Council of Higher Education for Virginia (SCHEV) Outstanding Faculty Award**

The Outstanding Faculty Awards are the Commonwealth's highest honor for faculty at Virginia's public and private colleges and universities. These awards recognize superior accomplishments in teaching, research, and public service.

**IEEE Pioneer in Nanotechnology Award**

Citation: For pioneering contributions to spintronics and straintronics employing nanostructures. It is the highest award given by the Nanotechnology Council of the Institute of Electrical and Electronics Engineers.

**Jefferson Science Fellow**

Prof. Bandyopadhyay served as a Jefferson Science Fellow of the US National Academies of Science, Engineering and Medicine during 2020-2021. In that role, he acted as a Senior Adviser to the USAID Bureau for Europe and Eurasia, Division of Energy and Infrastructure, on safeguarding the energy infrastructure in the Western Balkan and South Caucasus nations.

**Albert Nelson Marquis Lifetime Achievement Award**

Award given by Marquis' Who's Who organization to recognize lifetime contribution.

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