

CURRICULUM VITAE of Professor Chennupati Jagadish

Current Position: Distinguished Professor and Head of Semiconductor Optoelectronics and Nanotechnology Group, Australian National University (ANU)
Convenor, Australian Nanotechnology Network
Director (ACT Node), Australian National Fabrication Facility

Honorary Positions: Visiting Professor, Oxford University
Leverhulme Visiting Professor, Cambridge University
Beaufort Fellow, St John's College, Cambridge
Honorary Professor, Nanjing University; Central South University, China;
Distinguished Visiting Professor, University of Electronic Science and Technology of China, Chengdu, China; Distinguished Fellow, Chinese Academy of Sciences, CIOMP-Changchun; Guest Professor, Hefei Univ of Technology; Taiyuan Univ of Technology
Fellow, School of Engineering, University of Tokyo, Japan
Visiting Professor, Anna University; Mangalore University, India
Distinguished Adjunct Professor, Institute of Chemical Technology, India
Distinguished Chair Professor for Research, National Taiwan University

Date of Birth: 10 August 1957; **Citizenship:** Australian

Mailing Address:

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Education:

Ph.D. 1983-1986 Physics (semiconducting thin films), University of Delhi
M. Phil. 1981-1982 Physics (semiconducting thin films), University of Delhi
M. Sc (Tech). 1977-1980 Applied Physics (Electronics), Andhra University
B. Sc. 1974-1977 Physics, Nagarjuna University

Employment History:

Aug. 1985-Apr. 1988, Lecturer in Electronics and Physics, S.V. College, University of Delhi, India
Apr. 1988-Jun. 1990, Post-Doctoral Fellow in Physics, Queen's University, Kingston, Canada
July 1990-July 1999, Research Scientist, Research Fellow, Fellow, Senior Fellow, Dept. of Electronic Materials Engineering (EME), Research School of Physical Sciences and Engineering (RSPE), ANU
July 1999 – Nov. 2004, Professor (Level E1, Level E2) and Head of Semiconductor Optoelectronics and Nanotechnology Group, EME, RSPE, Australian National University
Nov 2004-Nov 2009, Federation Fellow and Professor (Level E2) and Head of Semiconductor Optoelectronics and Nanotechnology Group, EME, RSPE, Australian National University.
Nov 2009-Nov 2014, Australian Laureate Fellow and Distinguished Professor (Level E3) and Head of Semiconductor Optoelectronics and Nanotechnology Group, EME, RSPE, ANU.

Honours, Awards and Recognitions:

- Lloyd Rees Memorial Lecture, Australian Academy of Science, 2020
- Beattie Steel Medal, Australian Optical Society, 2019
- Thomas Ranken Lyle Medal for contributions to Physics, Australian Academy of Science, 2019
- IEEE Education Award of Electron Devices Society, 2019
- Global Leadership Award, University of South Florida President's award, 2019
- UNESCO Medal for contributions to the development of Nanoscience and Nanotechnologies, 2018
- AVS Nanotechnology Recognition Award, 2018

- Magnolia Silver Award, Shanghai Government, 2018
- IUMRS Somiya Award, 2017
- Welker Award, International Symposium on Compound Semiconductors, 2017
- Companion of Order of Australia, AC, Australia Day Honours 2016, Highest Australian Civilian Honour, “For eminent service to physics and engineering, particularly in the field of nanotechnology, to education as a leading academic, researcher, author and mentor, and through executive roles with national and international scientific advisory institutions”
- Nick Holonyak Jr Award, Optical Society of America, 2016
- Distinguished Fellow, Chinese Academy of Sciences, 2016
- Silver Jubilee International Medal, Materials Research Society of India, 2016
- IEEE Nanotechnology Pioneer Award, 2015
- IEEE Photonics Society Engineering Achievement Award, 2015
- Walter Boas Medal, Australian Institute of Physics, 2013
- Electrochemical Society Electronics and Photonics Division Award, 2012
- Quantum Device Award, International Symposium on Compound Semiconductors, 2010
- IEEE Third Millennium Medal, 2000
- IEEE Nanotechnology Council Distinguished Service Award, 2011
- IEEE Photonics Society Distinguished Service Award, 2010
- IEEE Distinguished Lecturer of the Electron Devices Society, 1997-2007
- IEEE Lasers and Electro-Optics Society Distinguished Lecturer Award, 2003-2005
- IEEE Nanotechnology Council Distinguished Lecturer Award, 2010-2014
- Peter Baume Award, Australian National University, 2006
- Australian Research Council Federation Fellowship, 2004-2009
- Australian Research Council Laureate Fellowship, 2009-2014
- ANU Top Supervisor Award for excellence in research supervision, 2010
- S. Ramaseshan Memorial Lecture, IISc, Bangalore, Oct 2016
- UGC UPE Distinguished Lecture, University of Hyderabad, Oct 2016
- Joy Kissen Memorial Lecture, Indian Association for the Cultivation of Science, Kolkata, March 2017
- Order of Australia Association-ANU Oration, Canberra, October, 2017
- Edwards Memorial Oration, Australian Society for Medical Researchers, Sydney November, 2017
- Prof. Y. Nayudamma Memorial Lecture, AP Akademi of Sciences, AU, Visakhapatnam Nov 2017
- Prof. CNR Rao Distinguished Lecture on Nanoscience and Nanotechnology, IIT Bombay, Jan 2018.
- Nayudamma Award, Nayudamma Centre for Alternative Developments, Nellore, April 2018

Fellowships of Professional Societies:

- International/Foreign Member, US National Academy of Engineering, 2020-present
- Fellow, Australian Academy of Science, 2005-present
- Fellow, Australian Academy of Technological Sciences and Engineering (ATSE), 2002-present
- Fellow, The World Academy of Sciences (TWAS), 2013-present
- Fellow, US National Academy of Inventors, 2015-present
- Honorary Fellow, Indian Academy of Science, 2017-present
- Honorary Fellow, Andhra Pradesh Akademi of Sciences, 2017-present
- Foreign Fellow, Indian National Science Academy, 2018-present
- Foreign Fellow, Indian National Academy of Engineering, 2018-present
- Foreign Fellow, European Academy of Sciences, 2019-present
- Fellow, The Institute of Electrical and Electronics Engineers, Inc. (IEEE), 2002-present
- Fellow, American Physical Society, 2003-present
- Fellow, Materials Research Society, 2010-present
- Fellow, American Association for Advancement of Science, 2007-present
- Fellow, Optical Society of America, 2004-present
- Fellow, Electrochemical Society, 2006-present
- Fellow, American Vacuum Society, 2008-present

- Fellow, International Society for Optical Engineering (SPIE), 2006-present
- Fellow, Institution of Engineering and Technology (UK), 2007-present
- Fellow, Institute of Physics (UK) , 1998-present
- Fellow, Institute of Nanotechnology (UK), 2001-present
- Fellow, Australian Institute of Physics, 1993-present
- Academician, Asia-Pacific Academy of Materials, 2013-present
- Fellow, The Electromagnetics Academy, 2014-present
- Honorary Member, Materials Research Society of India, 2012-present

Editorial Positions

- Editor-in-Chief, Applied Physics Reviews, 2020-
- Editor, Light: Science and Applications, Nature Publishing Group, 2014- 2019
- Editor-in-Chief, Progress in Quantum Electronics, 2016- 2019; Editor, 2008-2015
- Editor, Journal of Semiconductor Technology and Science, 2009-present
- Co-Editor-in-Chief, International Journal of High Speed Electronics and Systems, 2014-2019
- Editor, Springer Series in Materials Science, 2009-present
- Editor, Springer Series in Nanooptics and Nanophotonics, 2009-present
- Editor, Elsevier Series in Semiconductors and Semimetals, 2010-present
- Associate Editor, Applied Physics Reviews, 2013-2019
- Associate Editor, Beilstein Journal of Nanotechnology, 2011-2018
- Associate Editor, Journal of Physics D: Applied Physics, 2011-2017
- Editor, IEEE Electron Device Letters, 2008-2014
- Editorial Board Member of 20 other journals, i.e. ACS Nano, IEEE Photonics Journal, IEEE Nanotechnology Magazine, Physica Status Solidi: Rapid Res. Letts., Solid State Electronics

Professional / Scientific Society Leadership Activities:

- President, IEEE Photonics Society, 2018, 2019, President-Elect 2017, Past-President 2020-2021
- President, Australian Materials Research Society, 2016-2019, Past President, 2019-
- Vice-President and Secretary, Physical Sciences, Australian Academy of Science, 2012-2016
- Past President, President, President-Elect, IEEE Nanotechnology Council, 2007-2011
- Vice-President (Publications) IEEE Nanotechnology Council, 2004, 2005
- Chair, Awards Committee, IEEE Nanotechnology Council (NTC), 2006-07, Member 2016-2018
- Vice-President, IEEE Lasers and Electro-Optics Society, Asia Pacific, 2006, 2007
- Member, IEEE Fellow Committee, 2006, 2007, 2008, 2014
- Chair, IEEE Optoelectronic Devices Tech. Com. of the Electron Devices Society (EDS), 1997-2003.
- Member, IEEE Lasers and Electro-Optics Society Aron Kressel Award Committee, 2002, 2005, 2007
- Chair, IEEE Nano-Optoelectronics and Nano-Photonics Technical Comm. of NTC, 2002-2006
- Member, IEEE LEOS Quantum Electronics Award Selection Committee, 2003, 2004.
- Member, Working Group on Nanotechnology, Prime Minister's SEIC, 2004-2005.
- Member, Optical Society of America Nick Holonyak, Jr. Award Committee, 2005, 2006
- Member, Australia-India Strategic Research Fund Advisory Panel, 2006-2014
- Member, IEEE Technical Activities Board, 2008, 2009, 2018, 2019
- Chair, IEEE LEOS Aron Kressel Award Committee, 2009, 2010
- Member, National Emerging Technology Strategy Stakeholder Advisory Council, DIISR, 2010-2012
- Member, Prime Minister's Science Awards Selection Committee, 2011, 2012, 2013
- Member, IEEE David Sarnoff Award Committee, 2012, 2013, 2014
- Chair, IEEE Journal of Photovoltaic Devices Steering Committee, 2011-
- Senator, IUMRS Senate, 2011-
- Vice-President (Finance & Administration), IEEE Photonics Society, 2012-14
- Chair, IEEE Nanotechnology Council Fellow Committee, 2012, 2013
- Chair, Photovoltaics Technical Committee, IEEE Electron Devices Society, 2013-2014
- Deputy Chair, Expert Working Group, Asian Literacy: Language and beyond, ACOLA, 2012-2015
- Chair, Matthew Flinders Award Committee, Australian Academy of Science, 2013

- Member, Fellow Committee, IEEE Photonics Society, 2016
- Member, Joint Awards Committee, IEEE Photonics Society, 2015-2018
- Member, Nancy Millis Award Committee, Australian Academy of Science, 2016-
- Member, Fellow Committee, Awards Committee, IEEE Nanotechnology Council, 2016-2018
- Member, von Hippel Award Committee, MRS, 2016, 2017, 2018
- Member, IEEE Nishizawa Medal Committee, 2018-
- Chair, IEEE Photonics Award Committee, 2018-
- Chair National Committee for Materials Science and Engineering, Australian Academy of Science, 2016-2019
- President, US National Academy of Inventors, ANU Chapter, 2018-

PhD Student Supervision:

58 students obtained their PhD degrees. Currently supervising 16 PhD students.

Post-Doctoral Fellow, Research Fellow, Fellow Supervision/Mentoring:

He has mentored 45 post-doctoral fellows, research fellows and fellows. Currently he is mentoring 3 senior academics (2 Full Profs and 1 Assoc. Prof), 3 Research Fellows and 3 post-doctoral fellows at the ANU.

Former students and research fellows of Prof. Jagadish are in leading positions in Academia (Cambridge Univ., Oxford Univ., Imperial College, Cardiff Univ., Univ. of Warwick, Univ. of Manchester, Univ. of Illinois, Chicago, Australian National Univ., RIKEN, Univ. of Western Australia, Univ. of New South Wales, Monash Univ., Univ. of Technology Sydney, Indonesia, Malaysia, Israel, India, China, Korea), Industry (Google, Rainbow Optoelectronics, Translucent, Quantum Wafer, Technology Consulting, BluGlass), National Laboratories (Lawrence Livermore National Lab., Sandia National Lab., Jet Propulsion Lab., CSIRO, National Measurements Institute), and Government (Treasury, IP Australia, Education Dept).

External Funding:

Obtained more than \$95 Million in external funding and established facilities worth more than \$20 Million covering semiconductor growth, characterisation, device processing and testing including nanofabrication facilities.

Publications and Patents: Published 660+ peer reviewed journal papers, 280+ refereed conference papers and co-authored a book, co-edited 15 books, co-edited 13 conference proceedings, co-authored 13 book chapters, 16 review articles, guest edited 17 special issues of journals. Holds 5 US patents.

Citations: Prof. Jagadish's work has been cited 13000+ (24000+) times according to Web of Science (Google Scholar) and his h index is 60 (73).

Plenary/Keynote/Invited Talks: More than 190 Plenary, keynote and invited talks were given at prime conferences in the field. He has given 12-13 plenary/invited talks per annum during the past 10 years.

Conference Organisation: Chaired/ co-chaired many conferences including MRS Fall Meeting, IEEE Photonics Conference, ICONN, COMMAD, ACP, IEEE NMDC, Symposia of MRS, E-MRS, SPIE, ECS. Served on average about 10-12 international conference advisory/program committees p.a

Philanthropy/Endowment: Prof. Jagadish and his wife Vidya have created 'The Chennupati and Vidya Jagadish Endowment' at the Australian National University to support students and early career researchers from the developing countries to visit ANU Research School of Physics for up to 3 months to carry out research and develop collaborative linkages. Many students and young scientist from developing countries (e.g. India, Indonesia, Malaysia) benefited from this Endowment.