

CURRICULUM VITAE of Professor Chennupati Jagadish, AC

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: Fellow, School of Engineering, University of Tokyo, Japan
Overseas Visiting Professor, Anna University, India
Honorary Professor, Nanjing University, China
Thousand Talents Plan (Short-Term) Professor, UESTC, Chengdu, China

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:

- 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 President's Intl. Fellowship Initiative, 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's most prestigious and highest staff award in recognition of "outstanding record of research achievement, research leadership and extraordinary contributions to Science and to the 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, 2016
- UGC UPE Distinguished Lecture, University of Hyderabad, 2016

Fellowships of Professional Societies:

- Fellow, Australian Academy of Science, since 2005
- Fellow, Australian Academy of Technological Sciences and Engineering (ATSE), since 2002
- Fellow, The World Academy of Sciences (TWAS), since 2013
- Fellow, US National Academy of Inventors, since 2015
- Honorary Fellow, Indian Academy of Sciences, since 2017
- Fellow, The Institute of Electrical and Electronics Engineers, Inc. (IEEE), since 2002
- Fellow, American Physical Society, since 2003
- Fellow, Materials Research Society, since 2010
- Fellow, American Association for Advancement of Science, since 2007
- Fellow, Optical Society of America, since 2004
- Fellow, Electrochemical Society, since 2006
- Fellow, American Vacuum Society, since 2008
- Fellow, International Society for Optical Engineering (SPIE), since 2006
- Fellow, Institution of Engineering and Technology (UK), since 2007
- Fellow, Institute of Physics (UK), since 1998
- Fellow, Institute of Nanotechnology (UK), since 2001
- Fellow, Australian Institute of Physics, since 1993
- Academician, Asia-Pacific Academy of Materials, since 2013
- Fellow, The Electromagnetics Academy, since 2014
- Honorary Member, Materials Research Society of India, since 2012

Editorial Positions

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

Professional / Scientific Society Leadership Activities (selected):

- President-Elect, IEEE Photonics Society, 2017, President 2018,2019; Past-President 2020-2021
- President, Australian Materials Research Society, 2016-2019
- Vice-President and Secretary, Physical Sciences, Australian Academy of Science, May 2012-May '16
- 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
- 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 Science, Engineering and Innovation Council, 2004-2005.
- Member, Optical Society of America Nick Holonyak, Jr. Award Committee, 2005, 2006
- Member, Australian Government Reference Group on Nanotechnology, 2005-2006
- Member, Australia-India Strategic Research Fund Advisory Panel, 2006-2014
- Member, IEEE Technical Activities Board, 2008, 2009
- Chair, IEEE LEOS Aron Kressel Award Committee, 2009, 2010
- Member, National Emerging Technology Strategy Stakeholder Advisory Council, DIISR, 2010-2012
- Member, AAS Pawsey Medal Selection Committee, 2010, 2011
- 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 (AAS), 2013, 2016
- Member, IEEE Awards Board, 2015
- Chair, National Committee of Materials Science and Engineering, AAS, 2016-2019

PhD Student Supervision:

52 students obtained their PhD degrees. Currently supervising 10 PhD students.

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

44 post-doctoral fellows, research fellows and fellows were mentored.

Former students and research fellows are in leading positions in Academia (Cambridge, Oxford, Cardiff, Manchester, Illinois, Chicago, ANU, RIKEN, UWA, UNSW, UTS, Indonesia, Malaysia, Israel, India, China), Industry (Google, Rainbow Optoelectronics, Translucent, Quantum Wafer, Technology Consulting), National Laboratories (Lawrence Livermore National Lab., Sandia National Lab., NASA Jet Propulsion Lab., CSIRO, National Measurements Institute), and Government (Treasury, IP Australia).

External Funding:

Obtained more than \$40 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 580 peer reviewed journal papers, 280 refereed conference papers and co-authored a book, co-edited 10 books, co-edited 13 conference proceedings, co-authored 10 book chapters, 11 review articles, guest edited 15 special issues of journals. Holds 5 US patents.

Citations: Jagadish's work has been cited 9000 (16000) times according to Thomson ISI (Google Scholar) and his h index is 49 (60).

Plenary/Keynote/Invited Talks: More than 140 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 5 years.

Conference Organisation: Chaired/ co-chaired many conferences including MRS Fall Meeting, IEEE Photonics Society Annual Meeting, 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