



VIT<sup>®</sup>

Vellore Institute of Technology

(Deemed to be University under section 3 of UGC Act, 1956)

INSTITUTION OF EMINENCE

VIT - Recognized as "Institution of Eminence (IoE)" by Govt. of India

# ICNAN '19

2<sup>nd</sup> International conference on  
**Nanoscience and Nanotechnology**

29<sup>th</sup> November - 1<sup>st</sup> December 2019  
(Friday - Sunday)



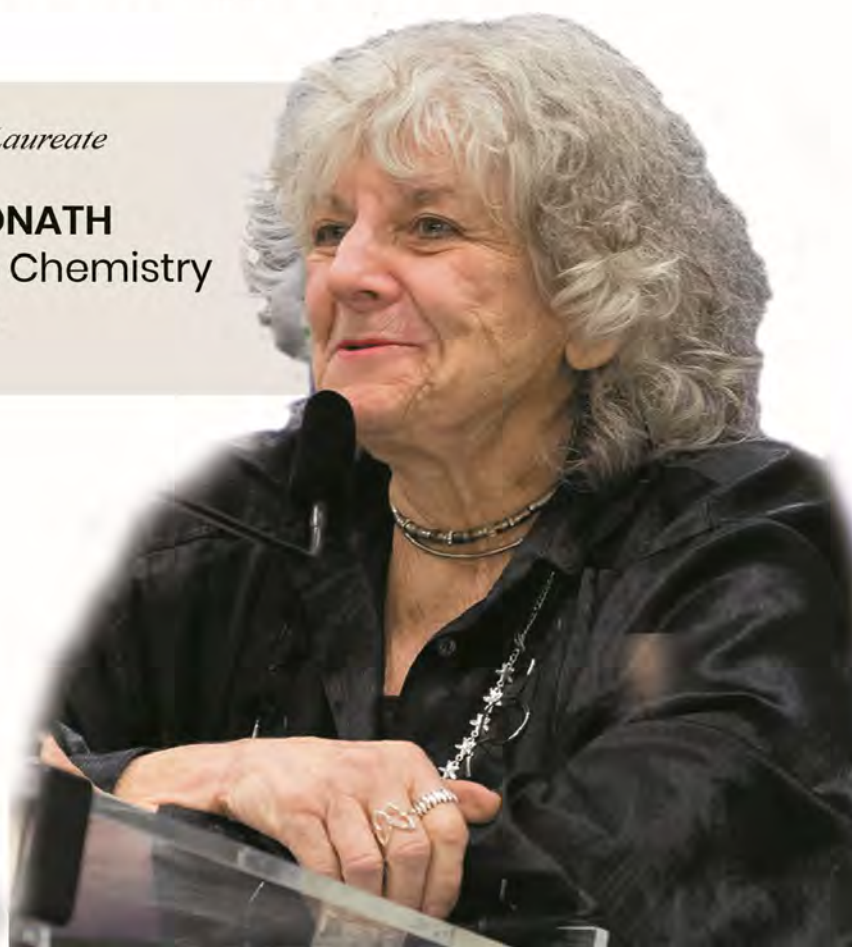
*Organised by*

**Centre for Nanotechnology Research**



*Meet The Nobel Laureate*

**Dr. ADA E. YONATH**  
Nobel Laureate in Chemistry  
(2009)



## ABOUT VELLORE INSTITUTE OF TECHNOLOGY

Vellore Institute of Technology (VIT) was established in 1984 as Vellore Engineering College by the Honourable Chancellor Dr. G. Viswanathan with the aim of providing quality higher education on par with international standards. From its humble beginning, the institution has grown to a premier educational institution with modest student strength of 39000 from 29 states and 7 union territories of India and 50 countries across the world. Currently, VIT has 4 campuses – in Vellore, Chennai, Amaravati (AP) and Bhopal (MP). The National Institutional Ranking Framework (NIRF) of the MHRD, Government of India, has identified VIT as the best Private Engineering Institution in India in the year 2016 and in 2017. VIT has gone for accreditation by NAAC [India], IET [UK], and ABET [USA] and follows world class academic processes. VIT is the first and only in India to get 4 star rating from QS, the world universities ranking organization. The Industry consortium FICCI, has declared VIT as the “University of the Year 2016”, in India. VIT has also been ranked in the top 201-250 in QS BRICS Ranking in 2016 and in the top 251-300 in Times Higher Education (THE), Asia Ranking. In recognition of the contribution of VIT, in research output, innovations introduced in academics, national and international collaborations and societal contributions, **Government of India** has recognized VIT, Vellore as an **Institution of Eminence (IoE)**. With its strong academic partnerships with over 200 Universities around the globe, VIT excels in academics and research.



INSTITUTION OF EMINENCE

## ABOUT CENTRE FOR NANOTECHNOLOGY RESEARCH

The Centre for Nanotechnology Research (CNR) at VIT, Vellore was established in June 2008 and its facilities are actively engaged in teaching courses for the “M.Tech. Nanotechnology” programme and undertaking research projects for M.Tech. and Ph.D. Scholars. The M.Tech. Nanotechnology programme was initiated in 2006 by VIT. VIT provided a generous support of about INR 13 million in setting up state-of-art Nanomaterial characterization and synthesis facilities for the Nanotechnology Lab. The M.Tech. Nanotechnology programme also received financial support of INR 29.4 million from the Department of Science and Technology, Government of India, New Delhi towards further enhancing infrastructure facilities of the Nanotechnology Laboratory and offering student fellowships and contingency grant for their research projects during the course. The centre has received funds from various funding agencies like DST, DRDO, IEEE etc. Our research is focused on various niche areas of Nanoscience and Nanotechnology inline with the global needs and to cater the same, the centre is equipped with a team of inter-disciplinary faculty members. The centre has published more than 150 research articles in International Journals. The centre has recently extended its facilities for external researchers on a consultancy basis.

<https://vit.ac.in/centers/cnr>

## RESEARCH THRUSTS OF THE CENTRE

- Uplifting various Nanofabrication and Nano-patterning techniques for creating function nanostructures and devices.
- Development of functional nanomaterials for optoelectronics, energy devices, sensor, biomedical and environmental related applications.
- Flexible Electronic devices.
- Patterning and Scanning probe-based nanolithography for graphene towards device applications.
- Magnetic Nano-materials and Nano-composites for biomedical and catalysis applications.
- Modelling and Simulations of Atomic and Nano-Scale devices for RF/Microwave/Photonics applications.
- First principle and semi-empirical modelling and simulation of graphene and Graphene Nano Mesh (GNM) based devices.

## ABOUT ICNAN '19

ICNAN '19 is organised by the Centre for Nanotechnology Research, VIT, Vellore, India to bring together Indian and International communities (students, scientists, engineers and stakeholders) from academia, government laboratories, industry and other organisations working in the field of Nanoscale Science and Technology. The conference covers broad theme on this area to accommodate wide range of interests and to facilitate interdisciplinary collaboration/interaction in both academia and industry. Nanotechnology's applications are enormous and hence this conference will be a right platform to bring in experts and researchers across the globe to discuss the current trends and future aspects of Nanoscience and Nanotechnology. Most of the practical applications of Nanoscience and Nanotechnology to cater the need of nations will be given importance in this conference. Moreover, ICNAN '19 will provide an international forum for the exchange of technical information through plenary lectures, invited talks, presentations by researchers and scientists. Many senior experts, academicians and researchers across the globe will be delivering special lectures at ICNAN '19.

## THEMES

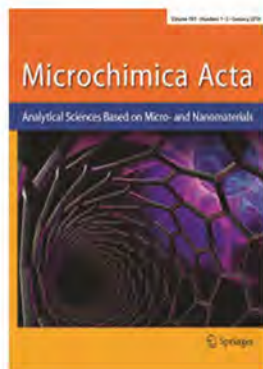
- Synthesis/Fabrication of Advanced 0D/1D/2D Nanostructures
- Thin Film Deposition Techniques
- Advanced Nanomaterial Characterization
- Molecular Nanoscience, Catalysis and Applications
- Nanomaterials for
  - Energy Harvesting, Storage and Conversion
  - Environment (Water purification, Adsorbents, CO<sub>2</sub> remediation)
  - Sensors
  - Agriculture, Food and Health care
- Hydrogen Energy using Nanostructured materials
- Magnetic Nanomaterials and Applications
- Biomedical-related devices and methods at the micro- and nano-scale
- Nanocoatings
- Nanofluids
- MEMS/NEMS
- Modelling and Simulation of Nanomaterials
- Nanophotonics and Plasmonics
- Nanoelectronics : Modelling, Simulation and Fabrication
- Quantum computing/ Quantum information processing
- Industrial Nanotechnology

## CALL FOR PAPERS

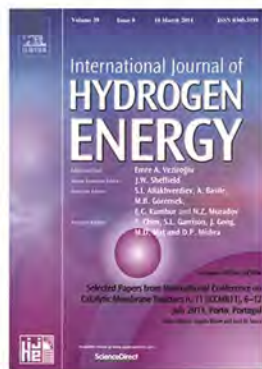
The participants are requested to submit the extended abstracts including manuscript title, author(s), affiliation(s) and contact details, with a clear indication of research work, methodology, major results and conclusion. For further details refer the conference web page.

## PUBLICATIONS & PROCEEDINGS

ICNAN '19 encourages original and unpublished work. Selected extended abstracts will be published in digital proceedings with online ISBN number. The timely submitted full papers to ICNAN'19 will be evaluated by the committee for its originality and subjected to the regular peer-review process. Based on the scope and quality of the work, the accepted full papers will be published in any of the following journals.



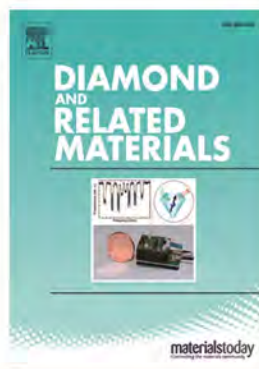
**Microchimica Acta**  
TR IF: 5.705



**International Journal of Hydrogen Energy**  
TR IF: 4.229



**Nanotechnology**  
TR IF: 3.404



**Diamond and Related Materials**  
TR IF: 2.232



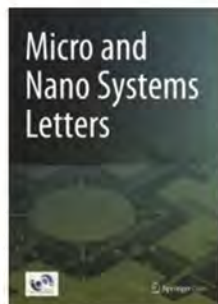
**IET Nanobiotechnology**  
TR IF: 2.059



**Materials Research Express**  
TR IF: 1.151



**International Journal of Nanotechnology**  
TR IF: 0.454



**Micro and Nano Systems Letters**



**International Journal of Modelling and Simulation**



**Materialstoday: Proceedings**



**Journal of Physics: Conference Series**

# Speakers

Dr. Ada E. Yonath, Weizmann Institute of Science, Israel  
Dr. Abdul Khaliq Rasheed, Xiamen University, Malaysia  
Dr. Adiraj Srinivas, DMRL, India  
Dr. Ajay Kumar Mishra, UNSAI, South Africa  
Dr. Ajayan Vinu, University of Newcastle, Australia  
Dr. Archita Patnaik, IIT Chennai  
Dr. Artem Mishchenko, University of Manchester, UK  
Dr. Arun Chattopadhyay, IIT Guwahati, India  
Dr. S. Balakumar, University of Madras, India  
Dr. Ben Buckley, Loughborough University, UK  
Dr. Bruno D'Aguanno  
Vellore Institute of Technology, India  
Dr. Carla Melendandri, University of Otago, New Zealand  
Dr. Chien-Hung (Henry) Li, Kaohsiung Medical University, Taiwan  
Dr. Daniel Thangadurai, Sri Ramakrishna Engineering College, India  
Dr. David Jenkins, Plymouth University, UK  
Dr. Debabrata Goswami, IIT Kanpur, India  
Dr. Deepak A., Saveetha University, India.  
Dr. Dinko Chakarov, Chalmers University of Technology, Sweden  
Dr. Gargi Raina, Vellore Institute of Technology, India  
Dr. M. S. Gaur, Hindustan College of Science and Technology, India  
Dr. Geetha Manivasagam, VIT, India  
Dr. Geoffrey I. N. Waterhouse, University of Auckland, New Zealand  
Dr. George Thomas, IISER, Thiruvananthapuram, India  
Dr. Gilberto Maia, UFMS, Brazil  
Dr. Giorgia Pastorin, NUS, Singapore  
Dr. Giridhar U. Kulkarni, CeNS, India  
Dr. Huang Nay Ming, Xiamen University, Malaysia  
Dr. R. Ilangovan, University of Madras, India  
Dr. M. Jayabalan, Sree Chitra Tirunal Institute, Thiruvananthapuram  
Dr. Jayan Thomas, University of Central Florida, USA  
Dr. Jayashankar Das, Gujarat Biotechnology Research Centre, India

Dr. R. Jayavel, Anna University, India  
Dr. Jin Zhang, Peking University, China  
Dr. John Philip, IGCAR, India  
Dr. John V. Kennedy, GNS Science, New Zealand  
Dr. Johnson GOH Kuan Eng, NUS, Singapore  
Dr. Kafil M. Razeeb, University College Cork, Ireland  
Dr. Kaliaperumal Selvaraj, CSIR-NCL, India  
Dr. K. Kalyanasundaram  
EPFL, Switzerland  
Dr. M. Kamruddin, IGCAR, Kalpakkam India  
Dr. Keiji Nagai, Tokyo Institute of Technology, Japan  
Dr. Konstantinos Georganakakis, Cranfield University, UK  
Dr. Krishna Ganesh, IISER Tirupathi, India  
Dr. Mani Karthik, ARCI, India  
Dr. A. Manuel Stephan, CECRI, India  
Dr. Manoj Gupta, NUS, Singapore  
Dr. Marlia Mohd Hanafiah, University of Kebangsaan, Malaysia  
Dr. Masahiro Yoshimura, Tokyo Institute of Technology, Japan  
Dr. Mohammad Khalid, Sunway University, Malaysia  
Dr. Murali Banavoth, University of Hyderabad, India  
Dr. Myong Yong Choi, Gyeongsang National University, South Korea.  
Dr. Nandan Erathodiyil, NanoBioLab, Singapore  
Dr. Narayan Pradhan, IACS, India  
Dr. T. N. Narayanan, TIFR, India  
Dr. A. Nirmala Grace, Vellore Institute of Technology, India  
Dr. Norman J. Wagner, University of Delaware, USA.  
Dr. K. Pandian, University of Madras, India  
Dr. Ponisseril Somasundaran, Columbia University, USA  
Dr. N. Ponpandian, Bharathiar University, India  
Dr. Poonam Singh, Arizona State University, USA  
Dr. T. Pradeep, IIT Madras, India  
Dr. Pranab Goswami, IIT Guwahati, India  
Dr. Prashant V. Kamat, University of Notre Dame, USA  
Dr. Pratap Kollu, University of Hyderabad, India  
Dr. Raman Vedarajan, ARCI, India

Dr. R. Ramaraj, Madurai Kamaraj University, India  
Dr. Ramendra Sundar Dey, INST, India  
Dr. Ravi Kumar N V, IIT Chennai, India  
Dr. Sabu Thomas, Mahatma Gandhi University, India  
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Dr. Sebastian Lourduoss, KTH-Royal Institute of Technology, Sweden  
Dr. Somnath Bhattacharyya, University of the Witwatersrand, South Africa  
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Dr. Wei Pan, Tsinghua University, China  
Dr. Weiping Wu, City University of London, UK  
Dr. Yury Gogotsi, Drexel University, USA  
Dr. Yutaka Ohno, Nagoya University, Japan

## PRESENTATION & YOUNG RESEARCHER AWARD



ROYAL SOCIETY  
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Nanoscale



Nanoscale  
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Signed certificate and RSC book voucher



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ACS journal certificate, INR 5000 and one year complimentary ACS membership

## ICNAN Young Researcher Awards

Four best oral presentations will be awarded a certificate and cash prize of INR 5000 each

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Director, Centre for Nanotechnology Research

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Dr. David Jenkins, Plymouth University, UK.  
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Dr. Mohammad Khalid, Sunway University, Malaysia.  
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Dr. Soon Kwan Jeong, KIER, South Korea.  
Dr. Sudhagar Pitchaimuthu, Swansea University, UK.  
Dr. Wu Weiping, City University London, UK.

## Credentials of VIT - Accreditations / Rankings / Ratings



Govt. of India has recognized VIT, Vellore as an Institution of Eminence (IoE)

INSTITUTION OF EMINENCE



**NIRF (National Institutional Ranking Framework)**  
No. 18 in Engineering Institution - 2019  
No. 19 in University Category - 2019  
No. 46 in Management Institution - 2019  
No. 1 Among private players for 4 consecutive years



**NAAC (National Assessment and Accreditation Council)**  
Accredited in 2015 - A grade  
Accredited in 2009 - A grade  
Completed 3 Cycles of Accreditation



**ABET (Accreditation Board for Engineering and Technology), USA**  
3 Times Accredited  
10 B.Tech Programs – Vellore Campus  
4 B.Tech Programs – Chennai Campus



**IET (The Institution of Engineering and Technology), UK**  
Accredited in 2005



**NBA (National Board of Accreditation)**  
Accredited in 2009  
Accredited in 1998



**FICCI (Federation of Indian Chambers of Commerce & Industry)**  
"Excellence in Faculty" - 2017  
"University of the Year" - 2016



UGC graded autonomy in 2018  
Government endorsed recognition for VIT



**ARIIA**  
ANNUAL RANKING OF INSTITUTIONS  
ON INNOVATION ACHIEVEMENTS

**No.1 Position - 2019**  
(Private Institutions)



**QS RATING 2016**  
4 STAR overall Rating in 2016  
Got 5 STAR Rating for 5 Sub Categories  
(Teaching, Employability, Facilities, Innovation and Inclusiveness)  
First University in India to get QS 4 Star Rating



**THE WORLD and ASIA UNIVERSITY RANKINGS**  
Ranked in the Top 501-600 in 2019 (World Ranking)  
Ranked in the Top 251-300 in 2018 (Asia Ranking)  
Ranked in the Top 201 - 250 (Young University Ranking)



**QS BRICS UNIVERSITY RANKING**  
Ranked in the Top 201 - 250



**QS WORLD UNIVERSITY RANKING BY SUBJECT**  
Ranked in the Top 301 - 400 QS World University Ranking by Subject  
Computer Science and Information Systems, EEE (Rank : 451-500)  
Chemistry (Rank : 501 - 550)



**QS I.GAUGE**  
Got DIAMOND University Rating in 2018



**ACBSP (The Accreditation Council for Business Schools and Programs), USA**  
VITBS is fully Accredited for 10 years from 2017



**ACCA (Association of Chartered Certified Accountants, UK)**  
BBA Programme is Accredited from 2017

## IMPORTANT DATES

Abstract submission – Extended abstract (2 pages; 1000 words)

Acceptance

Full paper submission

Early bird registration

Last date for registration

Intimation of paper to Conference proceedings (with ISBN)/ Journal

Final submission as per the Journal's format

Conference dates

- 30<sup>th</sup> September 2019

- 10<sup>th</sup> October 2019

- 30<sup>th</sup> October 2019

- 30<sup>th</sup> October 2019

- 30<sup>th</sup> October 2019

- 10<sup>th</sup> November 2019

- 25<sup>th</sup> November 2019

- 29<sup>th</sup> November - 1<sup>st</sup> December 2019

(For updates, visit: <https://www.vit.ac.in/ICNAN>)

## REGISTRATION

Registration Fee	Early Bird	Standard
Faculty/Research Scientist	8000 INR	9000 INR
Students/Scholars	5000 INR	7000 INR
Industry	9000 INR	10,000 INR
Foreign Participants	275 USD	300 USD
Group (Academic) 4 people	25,000 INR	30,000 INR

(REGISTRATION FEE INCLUDES CONFERENCE KIT, LUNCH & DINNER)

ONLINE REGISTRATION / ABSTRACT SUBMISSION VISIT:

<https://www.vit.ac.in/ICNAN>



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Back cover page 1,00,000 INR

Inside Front cover page 50,000 INR

Full page inside 30,000 INR

## CONTACT DETAILS

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