

Prof. USHA NATESAN, Ph.D., D.Litt.

Professor, Centre for Water Resources, & Director, Centre for Constituent Colleges
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EDUCATIONAL QUALIFICATIONS

- **B.E.** Civil Engineering, College of Engineering Guindy, Anna University, Chennai, 1986
- **M.Tech.** Remote Sensing, College of Engineering Guindy, Anna University, Chennai, 1988
- **Ph.D.** Ocean Engineering, Indian Institute of Technology Madras (IITM), Chennai, 1993
- **M.S.** Environmental Engineering, College of Engineering Guindy, Anna University, Chennai, 2000
- **D.Litt.**, Lincoln University College, Kuala Lumpur, Malaysia, 2019

RESEARCH INTERESTS

- Coastal and Ocean Engineering
- Environmental Engineering
- Remote Sensing and Geographic Information System

PROFESSIONAL EXPERIENCE

Total Experience in Academics, Research and Administration : 32 years and 07 months
Total Experience in Administration : 11 years and 08 months

Administrative Experience

Director, Centre for Constituent Colleges Anna University, Chennai	09.09.2020 - Till date
Advisor-I, Approval Bureau AICTE, New Delhi	02.11.2015 - 30.06.2020
Director, Centre for Research Anna University, Chennai	01.06.2012 - 02.06.2015
Deputy Director, Centre for Research Anna University, Chennai	23.06.2008 - 31.05.2012

Academic and Research Experience

Professor	Anna University, Chennai	20.04.2008 - Till Date
Associate Professor	Anna University, Chennai	01.01.2006 - 19.04.2008
Assistant Professor	Anna University, Chennai	20.04.2000 - 31.12.2005
Senior Lecturer	Anna University, Chennai	16.03.1998 - 19.04.2000
Lecturer	Anna University, Chennai	16.03.1994 - 15.03.1998
Research Associate	IGIDR, Mumbai	10.03.1993 - 09.03.1994
Research Assistant	IIT Bombay, Mumbai	10.03.1992 - 05.03.1993
Project Scientist	Anna University, Chennai	25.01.1991 - 06.03.1992
Ph.D. Scholar (Part Time)	IIT Madras, Chennai	25.01.1991 - 29.10.1992
Ph.D. Scholar (Full Time)	IIT Madras, Chennai	16.03.1988 - 24.01.1991

HONOURS AND AWARDS

International Recognitions

- **Research Advisor** of the Asia-Pacific Science Center (APACSCI), **Singapore**, 2020
- **Academic Advisory Board Member** of Cyberjaya Skill International College (CYSIC), **Malaysia**, 2020
- Conferred with the **Honorary Degree of Doctor of Letters (D.Litt.)** by the **Lincoln University College, Kuala Lumpur, Malaysia**, 2019

- **Organizing Committee Member** of the **International Conference on Oceanography, OMICS International, Miami, USA, 2013**
- Recipient of the **Young Scientist Project Award** from the **International Foundation for Science (IFS), Sweden, 2004**
- Recipient of the **Japanese Government Scholarship** from the **Ministry of Human Resource Development (MHRD), Government of India** for pursuing Ph.D. at Japan, 1990 (Did not accept the offer as I had already enrolled for Ph.D. at IIT Madras, Chennai)

National Recognitions

- **Academic Advisory Board Member** of 3G Institute of Research and Policy Studies, **IIT Madras Research Park, Chennai, 2020**
- **Completion of 25 years of unblemished services at Anna University** was commemorated by Anna University, Chennai, 2019
- Conferred with the **Honorary Fellowship** by the **Indian Society of Technical Education (ISTE), New Delhi**, for the development of Indian Technical Education, 2019
- Recipient of the **Eminent Engineer Award** from the **Institution of Engineers (India), Hosur, 2016**
- Recipient of the **Award for Excellence in Research** from the **Education Expo TV Companies Rating System (EET CRS), New Delhi, 2016**
- Recipient of the **TEC Best Women Achiever Award** from **Tagore Engineering College, Chennai, 2016**
- Recipient of the **UGC-BSR One Time Grant** from the **University Grants Commission (UGC), New Delhi**, for outstanding Research and Guidance, 2015
- **Guest of Honour** at the International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE 2015), **National Institute of Technology Karnataka (NITK), Surathkal, 2015**
- **Accomplishment of National Record** during the tenure as the Director, Centre for Research, Anna University, Chennai, 2014:
Anna University, Chennai had featured in the **Limca Book of Records** for awarding the highest number of Ph.D. Degrees in a calendar year by any Technical Institution in India during the 35th Annual Convocation, 5th November 2014
- Recipient of the **National Geospatial Award for Excellence** from the **Indian Society of Remote Sensing (ISRS), Dehradun, 2014**
- Recipient of the **Active Researcher Award** from **Anna University, Chennai, 2012**
- Obtained a **Travel Grant** from the **Ministry of Science and Technology, Government of India** for attending the American Shore and Beach Preservation Association's (ASBPA) National Coastal Conference on Celebrating the Diversity of the Coast, **Charleston, USA, 2010**
- Recipient of the **Tamil Nadu Young Women Scientist Award** from the **Science City, Government of Tamil Nadu, 2002**
- Secured **Second Rank in M.Tech. Remote Sensing**, Anna University, Chennai, 1988

Establishment of the Marine Research Laboratory

- Established the Marine Research Laboratory (MRL) at the Centre for Water Resources (CWR), Anna University, Chennai with numerous Equipment worth more than **₹2Crores** and Chemicals worth more than **₹40Lakhs** with the help of the fund generated from various Sponsored Research Projects handled as the Principal Investigator
- MRL served as a strong foundation for the Students to carry out their experimental studies in order to solve the day-to-day coastal problems faced by the Society
- Schematized a Laboratory Manual for the Marine Water Quality Analysis and Manual comprising of the Standard Operating Procedure of all the Equipment

Member of the National Committees

- **Working Group Member** for the formulation of the Science, Technology, and Innovation Policy of India (STIP 2020), **Ministry of Science and Technology**, Government of India, 2020
- **Member of the Board of Governors**, National Institute of Technical Teachers Training and Research (NITTTR), Chennai, 2019 - 2020
- **Expert Committee Member** for the development of a New Pan India Programme on STEMM Mobile Science Exhibition Buses, **Ministry of Science and Technology**, Government of India, 2019 - 2020
- **Sub-Committee Member** for the preparation of a Policy on Innovation, Technology Development and Deployment, **Ministry of Science and Technology**, Government of India, 2019
- **Expert Committee Member** for the effective implementation of Open Distance Learning and Online Education in India, **UGC**, New Delhi, 2019
- **Programme Advisory and Monitoring Committee (PAMC) Member** for the National Network Programme on Climate Change and Coastal Vulnerability, **Ministry of Science and Technology**, Government of India, 2018 - 2021
- **UGC Consortium of Academic and Research Ethics (CARE) Committee Member** for the refinement of the UGC List of Approved Journals, **UGC**, New Delhi, 2018 - 2020
- **Peer Review Committee Member** for the evaluation of the proposals from Canadian and Indian Institutions, **Shastri Indo-Canadian Institute**, New Delhi, 2017 - 2020
- **Presiding Officer** of the **Internal Complaint Committee (ICC)**, **AICTE**, New Delhi, 2017 - 2020
- **Chairperson** of the **136th Board of Governor Meeting of National Institute of Technical Teachers Training and Research (NITTTR)**, Bhopal, 2017
- **State Steering Committee Member** of the Pradhan Mantri Kaushal Vikas Yojana (PMKVY) Programme for Andhra Pradesh and Telangana, **AICTE**, New Delhi, 2017
- **Expert Committee Member** for the assessment of the proposal of Maulana Azad National Urdu University, Hyderabad for the establishment of Polytechnic at Kadappa and ITI at Cuttack, **UGC**, New Delhi, 2017
- **Expert Committee Member** for the evaluation of the recommendations of the 7th Pay Review Committee (for the Technical Institutions) in accordance with UGC, **AICTE**, New Delhi, 2017
- **Member of the Board of Governors**, National Institute of Technical Teachers Training and Research (NITTTR), Bhopal, 2016 - 2019
- **State Fee Regulatory Committee Member** for the fixation of the fees of the Technical Institutions in NCR, **Government of National Capital Territory of Delhi**, 2016 - 2017
- **Expert Committee Member** for reviewing the functioning of the Avinashilingam Institute for Home Science and Higher Education for Women, Coimbatore, **UGC**, New Delhi, 2016
- **Expert Committee Member** for reviewing the projects funded by **Board of Research in Nuclear Sciences (BRNS)**, Department of Atomic Energy (DAE), Government of India, 2013
- **Syndicate Member** of **Anna University**, Chennai, 2012

Professional Contributions

- **Chairman/ Member of Executive Committees/ Academic Councils/ Board of Studies/ Academic Research Boards/ Academic Committees/ Enquiry Committees/ Selection Committees**
- **Advisory Committee Member/ Organizing Committee Member** of numerous International and National Conferences/ Events
- **Advisory Board Member/ Associate Editor/ Editorial Board Member/ Reviewer** of several International and National Journals
- **Keynote Speaker/ Chair of Technical Sessions** in various International and National Conferences

Recognitions of the Ph.D. Scholars

- Dr.P.Anitha: **Best Paper Award**, International Conference on Water Resources, Coastal and Ocean Engineering (ICWRCOE 2015), National Institute of Technology Karnataka (NITK), Surathkal, 2015
- Dr.AL.Muthulakshmi: **Prof.U.C.Kothyari Best Ph.D. Thesis Award**, Indian Society for Hydraulics (ISH), Pune, 2014
- Dr.A.Saleem Khan: **Invitation for participation** in the Dissertations Initiative for the Advancement of Climate Change Research Symposium, Colorado, USA, National Science Foundation (NSF), USA and National Aeronautics and Space Administration (NASA), USA, 2013

ADMINISTRATIVE EXPERIENCE AS THE DIRECTOR, CENTRE FOR CONSTITUTENT COLLEGES, ANNA UNIVERSITY, CHENNAI

- Administration of the service matters viz., probation declaration, career advancement, retirement, disciplinary action, sanction of leave, etc. pertaining to the Teaching and Non-Teaching employees of the **16 Constituent Colleges** of Anna University, Chennai
- Implementation of revision of pay scales for the employees as per the relevant State Government Orders
- Execution of the transfers of employees within the College Campuses
- Monitoring the infrastructural development and purchase of relevant equipment

ADMINISTRATIVE EXPERIENCE AS THE ADVISOR-I, APPROVAL BUREAU, AICTE, NEW DELHI

- **Granting of Approval for the establishment of new Technical Institutions and administration of Approval related issues for the existing Institutions all over the Country** offering Courses in various Programmes viz., Engineering and Technology, Pharmacy, Hotel Management and Catering Technology, Architecture, Planning, Applied Arts and Crafts, Design, Computer Applications and Management at Diploma/ Post Diploma/ Under Graduate Degree/ Post Graduate Degree/ Post Graduate Diploma Levels
- Granting of Approval for the following categories:
 - **Collaboration and Twinning Programme between Indian and Foreign Institutions** in the field of Technical Education, Research and Training
 - **State/ Central/ Private (if applied) Universities and Institutions Deemed to be Universities** in the field of Technical Education
 - **Standalone Institutions/ Institutions Deemed to be Universities to conduct Courses through Open and Distance Learning mode**
 - **Graded Autonomy to Standalone Institutions**
- **Monitoring the compliance of norms and standards as per the Regulations**, irregularities and malpractices
- **Issuing penal action** in case of violations of Regulations/ Approval Process Handbook

ADMINISTRATIVE EXPERIENCE AS THE DIRECTOR, CENTRE FOR RESEARCH, ANNA UNIVERSITY, CHENNAI

- Administration of the Ph.D. and M.S. Research Scholars registered all over Tamil Nadu which involves the execution of various procedures from the Registration to the Award of the Degree
- Formulation of the policy reforms and preparation of the Budget of the Centre in conjunction with the Research Board and Executive Committee

- Continuous interactions with the Indian and Foreign Examiners to obtain the Evaluation Reports of the Dissertations within the specified deadline
- Framed the **Regulations for Doctor of Philosophy/ Master of Science (By Research) R 2009**, Anna University, Chennai, in accordance with the UGC Regulations

PATENTS

Filed patent rights for **Multiband Pattern Reconfigurable Antenna: A Method and Device Thereof**, India, File Number: 201941031648 Dated 5th August 2019

PUBLICATIONS

International and National Journals	:	127
h-index	:	19
i10-index	:	34
Citations	:	1636
Books	:	02
Chapter in Books	:	05
International Conferences	:	51
National Conferences	:	36

RESEARCH GUIDANCE

Postdoctoral Fellows	:	01 (Under Process)
Ph.D. Scholars	:	22 Degree Awarded; 04 Ongoing
M.S. (By Research) Scholars	:	04 Degree Awarded
M.E./ M.Tech./ M.Sc. Students	:	54
B.E. Students	:	08

SPONSORED RESEARCH PROJECTS

Total Grants received for carrying out the Sponsored Research Projects: ₹3.4 Crores

International : 01 International Foundation for Science (IFS), Sweden

National : 15 Indian Space Research Organisation (ISRO), World Bank, Department of Ocean Development (DOD), Ministry of Science and Technology, Ministry of Environment and Forests (MoEF), Indira Gandhi Centre for Atomic Research (IGCAR), Atomic Energy Regulatory Board (AERB), Board of Research in Nuclear Sciences (BRNS), Ministry of Earth Science (MoES)

Total Value of the Industrial Consultancy Works: ₹91 Lakhs

COUNTRIES VISITED

Austria, Cambodia, Denmark, France, Germany, Indonesia, Italy, Luxembourg, Malaysia, Portugal, Singapore, Spain, Switzerland, Thailand, UAE, USA