

CURRICULUM-VITAE

SIRAJ AHMED KHAN

Professor

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Area of Interest and Research: *Wind Energy:* Resource Assessment, Flow Modeling, Remote Sensing, Wind Turbine Design and Performance Prediction, Site Selection, Wind-Farm Design and Project Development and Assessment. *General Mechanical Engineering Design.*

Subject Taught: *B.Tech.* Wind Energy Technology, Design of Machine Elements, Machine Design, CADD, Advanced Machine Design.

M.Tech. Detailed Design of Rotary Machine, Product Design, Design and Selection of Bearings, Wind Energy.

Educational Qualifications: Ph.D. (Some Studies on Design and Performance of Horizontal Axis Wind Turbine Generators RGPV 2005) M.Tech. (Design of Mechanical Equipment IIT D 1992) B.E. (MANIT formerly MACT 1987 with Distinction) HSSCE (PLSJ Model Model Gov. School Jabalpur 1982 Merit Scholarship).

Technical Training: *Remote Sensing for Wind Energy* [2013] DTU Wind Energy Danish Technical University, Denmark. *Wind Energy* [1995-96] University of Salford, UK

Supervised Ph. D. Research Work: Scholars Graduated (Ten) and Currently Mentoring (Two) in the area of *Wind Energy*.

Research Publications: Forty-three Scopus research paper with 10 h index with 512 citations.

Books Authored: (1) WIND ENERGY: Theory and Practice *Siraj Ahmed*, 3/e, 2016, PHI, *Eastern Economy Edition* ISBN978-81-203-5163-9 New Delhi.

(2) MECHANICAL ENGINEERING DESIGN *Siraj Ahmed*, 2014, PHI, *Eastern Economy Edition* ISBN: 978-81-203-4931-5 New Delhi.

(3) DESIGN AND OPTIMIZATION OF 150 m WIND MONITORING TOWER In Indian Condition. Pramod Sharma, Vilas Warudkar and *Siraj Ahmed* 2019. Lambert Academic Publishing. ISBN 978-620-0-45608-3.

(4) Experimental Investigations to study the Effect of Coatings to Reduce Hydrogen Embrittlement of High-Strength Steels. Manish Vishwakarma, Amit Khare and *Siraj Ahmed* 2023, walnutpublication.com ISBN 978-935911476-7.

Patent Granted: *Disc on Disc Type Rolling Wear Testing Machine* (No. 521250, 07.03.2024) and *Dual Wear Tribometer* (No. 422991, 24.02.2023), the Patent Office, GoI.

Designed, proposed and introduced **M.Tech. Programme in Industrial Design**. The programme has been successfully running in Department of Mechanical Engineering, MANIT since July 1996.

External Sponsored R & D Projects Completed under BRNS (BARC GoI), MHRD (GoI), DST, MST, GOI, Science and Engineering Research Council Scheme for Young Scientist of about Rs. 75 Lakhs.

Consultancy Projects: Completed more than 15 Industrial Consultancy Projects mostly in the area of *wind energy* of more than Rs. 10 Lakhs.

Letter of Appreciation (2014) for “Contribution to MANIT to Aim for Centre of Excellence”

Book Chapters

- (1) *Application of Remote Sensing in Wind Resource Assessment* (2020). ENCYCLOPAEDIA OF RENEWABLE AND SUSTAINABLE MATERIALS, vol.3, pp. 265–276. Oxford: Elsevier.
- (2) *Advancement in remote sensing of wind energy. Advances in Clean Energy Technologies* (2021). Pages 207-233. Academic Press.
- (3) *Tribological Behaviour of Carbide-Free Bainite in High Silicon Steel* (2021). Book: Advanced Materials and manufacturing Processes, 1/e, CRC Press, Paged; 9, eBook ISBN 978003093213.

Articles Published

Several Articles of National Importance is Published on *Wind Energy* in MNRE GOI publication AKSHAY URJA: *Remote Sensing Application in Wind Energy* [2014], *Re-Powering the Wind Power* [2015], *Wind!* [2016] and *Vibrant Winds Blowing Across India* [2016].

Administrative Work: *Head of the Department* 2013-2015, during the tenure Programme of B. Tech. in Mechanical Engineering have been granted five-year Accreditation (Grade-A) from National Board of Accreditation (NBA). Extensive experience as *PG Programme Coordinator, Research Committees, Faculty Recruitment Committees, Warden, Chairman Council of Wardens, Joint Controller of Examination* et cetera. Senate Member External Expert NIT Raipur. Advisor UPSC (Subject Expert). Empanelled Subject Expert for Ph. D. Research Examination Anna University, Osmania University et cetera.

Coordinator for five **STTPs** focussed on *Wind Energy Technology* have been conducted in recent past and collaborated with IIT BHU and NIT Allahabad at their place. And organized three **International Conference** organized as **Chairman/Secretary** on **Renewable Energy**.

Invited/Expert/Guest Lectures: Delivered **More than One Hundred** Invited/Expert Lectures various aspects of *Wind Energy Technology* in India (IIT, NIT, IIFM, IE (I), DTU, BHEL etc.) and abroad (University of Jordan [Amman], University of Malaysia [Kuching], IE Sri Lanka [Columbo], et cetera)

Lecture Series: 2017-2023 *Wind Energy Technology*, REM Elective Subject, PGDFM Program, IIFM, Bhopal. 2024 *Wind Energy Technology*, Sustainable Energy Transition, PGDFM Program, IIFM, Bhopal

Lecture Series: 2015-16 Machine Design (Fatigue, Gear and Design of Shaft) for Trainee Engineers at BHEL, Human Resource Development Centre, Bhopal.

Abroad Visited

- Jordan (2013) Key Note Speaker on *Wind Energy* in International Conference on Renewable Energy, GCREEDER 2013. University of Jordan, Amman
- Denmark (2013) Technical Training, *Remote Sensing in Wind Energy*, DTU Wind Energy
- Sri Lanka (2012) Resource Person on Wind Energy: International Conference on Clean and Green Energy
- Malaysia (2011) International Conference on Renewable Energy
- USA (2008 and 2009) Consultancy Project of *Wind Energy* Development
- China (2007) International Conference *Wind Energy*
- UK (1995-96) Technical Training (Six Months) *Wind Energy*

MoU with Industry/Institutes:

- National Institute of Wind Energy (MNRE GoI) Chennai 2003-05, Wind Energy Laboratory Wind Resource Assessment Facility, *Installed Wind Monitoring Stations* and *Developed Wind Energy Laboratory*.
- Environmental Assessment Division BARC Mumbai 2010-13, Dust Emission Monitoring and its Modelling (*Wind Related Studies*), *Dust Emission Assessment and Modelling* at Jaduguda Uranium Mines, Jharkhand.