

## Curriculum Vitae at a Glance of Prof. Mushahid Husain

1. **Name** : PROF. MUSHAHID HUSAIN
2. **Designation** : Vice Chancellor  
M. J. P. Rohilkhand  
University, Bareilly  
**Former-** Director  
Centre for Nanoscience  
& Nanotechnology, JMI  
and  
Professor  
Department of Physics, JMI
3. **Date of Birth** : Jan. 18, 1952
4. **Mailing Address** : Vice Chancellor's Office,  
M. J. P. Rohilkhand University  
Bareilly 243006, (U.P.) India  
E-mail : mush\_phys@rediffmail.com  
Tel: 011-26988332(O) Fax: 011-26981753
5. **Qualification** : M.Sc. Physics (Electronics) Ph.D. (Solid State Physics)
6. **Field of Specialization** : Has contributed extensively in the field of Materials  
Science, particularly in Nanotechnology/ Nanomaterials/  
Carbon Nanotubes, Amorphous Semiconductor,  
Conducting Polymer, Superconductivity
7. **Academic Experiences**
  - (i) **Teaching Experience** : 31 Years (B.Sc., M.Sc. Physics & M.Tech. Nanotechnology)  
(Prof. since 23 Nov. 2002)
  - (ii) **Research Experience** : Has a research experience of 31 Years. Has developed  
the Materials Science Lab in Department from scratch  
during the last 23 years.



*The Laboratory is well equipped for the synthesis and characterization of semi - conducting and nano- materials especially the Carbon Nanotubes. Some of the important equipments are : Scanning Electron Microscope, Low Pressure Chemical Vapour Deposition System, RF & DC Sputtering Systems, Thin Film Coating Units, FTIR and ECR Plasma Etching System - which was developed indigenously in the Department.*

(iii) Particulars of Guiding Research

(a) No. of candidates who have : 41  
been awarded the Ph.D.

(b) No. of candidates presently : 06  
working for Ph.D.

(iv) Publications

(a) Research Papers : Has total 188 Research Publications. Out of these  
(in Journals) 180 papers are in the International Journals of  
high repute and 08 are in the National Journals.

(b) Research Papers : 50 (in Conference Proceedings)

(c) Review Articles : Has written 06 Review Articles. The one on Carbon  
Nanotube and its applications has become very  
popular.

(d) Invited Talks : Has delivered 116 Invited Talks. Out of these 39  
have been delivered in the Foreign Countries  
and 77 in India.

(e) Books : (i) Has edited a book entitled “Advances in  
Physics of Materials” (1989)  
(ii) Advances in Nanomaterials  
Springer, ISBN 978-81-322-2668-0, 2015

(f) Book Chapter : Nanotechnology for Biological Sciences,  
Discovery Publishing House Pvt. Ltd.,  
2015 (India) ISBN: 978-93-5056-749-4.

**8. Research Projects**

(a) Completed : Has completed 11 Major Research Projects (Total  
Grant: 2.55 Crore) Funded mainly by UGC  
(3 Projects-36 Lakhs) DRDO (5 Projects-1.75 crores),  
DST (1 Project-1 Lakh) CSIR (1 project-4 lakh).  
DRDO (2007-2011) “Growth of Multi-walled Carbon  
Nanotubes suitable for device application (FEDs)”  
Rs. 39 Lakhs

(b) Completed in 2015 : DIT (2009-2013) “Growth of Single Walled Carbon  
Nanotubes for Semiconducting Applications”  
Rs.3.81 Crores.

**9. Administrative Experiences**

(A) Institutional Experiences :  
Vice Chancellor, M.J.P. Rohilkhand University, Bareilly, since 17<sup>th</sup> December, 2013 till  
date.

**Director, Centre for Nanoscience & Nanotechnology, Jamia Millia Islamia, since 9<sup>th</sup> Dec. 2011 - 17 Dec. 2013.**

The project to set up Centre for Nanoscience and Nanotechnology was initiated by him after running successfully a M.Tech. Nanotechnology programme in the Department of Physics since 2007. Also, established the teaching and research Laboratories facilities for the M. Tech. Nanotechnology Course.

***Chairman of Central Admission Co-ordination & Monitoring Committee (CACMC), of the University admissions since 2010- 2013. “CACMC is the highest body of the University for Co-ordination & monitoring of the admission process of all the courses of the university. Under the supervision of CACMC the entrance test, coding, decoding of the answer sheets and preparation of the results are carried out. The chairman also takes care of the queries made by Deans and Heads of various Faculties & Departments related to the admission process and he also takes the appropriate decisions.***

**(a) Chief Coordinator, Ph.D. Admission, 2010- 2013, JMI**

**(b) Ex-Member of the Board of Governors: National Institute of Technology, Kurukshetra.**

**(c) Member- Board of Management: Centre for Theoretical Physics, JMI**

**(d) Member of the Academic Councils:**

**(i) Central University of Punjab,**

**(ii) Agra University,**

**(iii) ITM University, Gurgaon**

**(iv) Ex Elected member- Jamia Millia Islamia**

**(e) Has been Member of the Board of Studies/Faculty Committee of:**

**(i) Deptt. of Applied Physics, National Institute of Technology, Srinagar,**

**(ii) Deptt. of Physics, Jivaji Univ. Gwalior,**

**(iii) Deptt. of Physics, Vanasthali Vidyapeeth, Raj.**

**(iv) Deptt. of Electronics Engineering, J.M.I.**

**(v) Deptt. of Applied Sciences, F/o Engg & Tech. J.M.I.**

**(vi) Deptt. of Applied Physics, F/o Engg & Tech. A.M.U.**

**(vii) Faculty Committee of Faculty of Science, Punjab University, Patiala**

**(B) Conference /Workshop Organized:**

**(1) National: 08**

## (2) International Conferences/Seminars: 09

- i) **Secretary**, International Seminar of Physics of Materials in Department of Physics, 1987.
- ii) **Jt. Secretary/ Member Steering Committee**, International Conference on the Physics of Semiconductor Devices (IWPSD), 1997, 1999, 2001, 2003, 2005, 2007, 2011
- iii) **Chairman**, 15<sup>th</sup> International Conference on the Physics of Semiconductor Devices (IWPSD), 2009.
- iv) **Co-Chairman**, 17<sup>th</sup> International Conference on the Physics of Semiconductor Devices (IWPSD), 2013.

## (3) Experience of Scientific Collaborations: Germany, Mexico, SSPL Delhi, NPL, New Delhi

### (4) Referees of Scientific Journals: International (04), National (02)

### (5) Associate Member- Third World of Academy Sciences, (ICTP), Trieste, Italy

### (6) Medal 2016- Materials Research Society of India (MRSI)

### (7) Fellow / Academicians- Asia Pacific Academy of materials (APAM)

### (8) Dr. Zakir Husain Award 2014 for his contribution to the mathematical modeling of Nano-structures.

## 10. Foreign Visits : Has made 29 Foreign Visits.

(i) ITALY Aug.31-Oct.4, 1987); (ii) PAKISTAN (June-July 1988); (iii) ITALY (Aug.20-Sept.27, 1989); (iv) UNITED KINGDOM (Sept.28-Oct.4, 1989); (v) PAKISTAN (Aug.17-20, 1991); (vi) ITALY (Oct. 30 -Dec. 01, 1995); (vii) SINGAPORE (Nov. 04 - 05, 1996); (viii) BANGLADESH (Oct. 28 - Nov. 01, 1996); (ix) MALAYSIA (Nov. 06- 08, 1996); (x) BANGLADESH (March 20 - 22, 1997); (xi) MEXICO (Sept.01-09, 1997); (xii) U.S.A. (Sept. 10 - 13, 1997); (xiii) MEXICO (Sept. 01-03, 2001); (xiv) U.S.A. (Sept. 05 - 08, 2001); (xv) UNITED KINGDOM (Sept.10-14, 2001); (xvi) BANGLADESH (March 30 - 31, 2002); (xvii) SAUDI ARABIA (March 15 to March 17, 2004); (xviii) TAIWAN (June 30- July 3, 2004); (xix) MEXICO (Aug. 21-24, 2006); (xx) USA (Aug. 25- 31, 2006); (xxi) SAUDI ARABIA (Nov 18 to Jan 07, 2007); (xxii) SAUDI ARABIA (14 - 19 June, 2008) (xxiii) IRAN(8March-14 march ) (xxiv) GERMANY(17-24 April 2011) (xxv) SAUDI ARABIA (02- 07 October, 2011) (xxvi) SINGAPORE (30-31 December 2012) (xxvii) SAUDI ARABIA (18-26 April 2013) (xxviii) IRAN (18-25 November 2014)(xxix) Saudi Arabia (14-18, May, 2015)

## 11. Life Membership of Academic Societies:

- (i) **President**, Society for Nano Science and Technology
- (ii) **Secretary**, Society for Semiconductor Devices.
- (iii) **Ex-Vice President**, Indian Physical Society.
- (iv) **Ex-Vice President**, Semiconductor Society, India.
- (v) **Fellow**, Meteorological Society of India.

## 12. Subject Expert: in various University, Committees of CSIR, UGC, DIT, NISCAIR, etc.

## Biographical Sketch of Prof. Mushahid Husain

Prof. Mushahid Husain, an eminent Scientist is a Vice Chancellor in M. J. P. Rohilkhand University, Bareilly. Formerly, He was a Senior Professor and Director, “Centre for Nanoscience and Nanotechnology” of Jamia Millia Islamia (Central University), New Delhi working in the field of Nano-Technology/semiconductor, where he has excelled in more ways than one. He has more than 30 years of experience of teaching and research.

He has been instrumental in starting M.Tech. Nanotechnology course in the Department of Physics, JMI of which he was the Coordinator also.

*In Aug. 1986, he joined Department of Physics, Jamia Millia Islamia, New Delhi, as a faculty member from Bhopal University where he served as permanent lecturer since 1982. In Jamia Millia Islamia he set up a Material Science Laboratory in the Department of Physics.* This laboratory was identified as one of the centres to undertake research training program in the field of Semiconductor Science and Technology by Regional Network of Science & Technology (International Centre for Theoretical Physics, Trieste, Italy) and Centre for Science & Technology of Non Aligned and Other Developing Countries, New Delhi. Under this program, a number of scientists from NAM countries have successfully completed their research training at this laboratory.

He is one of the pioneer workers in the area of research on Amorphous Semiconductors and has been instrumental in creating a group of young scientists to work in this field.

Prof. Husain has completed several major research projects on amorphous semiconductors funded by various government agencies like DST, DRDO etc.

Recently he has completed two major research projects in the field of Nano-Technology especially the carbon nanotubes by DRDO and Department of Information Technology (DIT) (Rs. 3.81 Crores). In this project his group has successfully synthesized Single Wall Carbon Nanotubes for sensor applications. It should be noted that except his group nobody is growing Single Wall carbon nanotubes in the country. They have also undertaken the work on functionalization of carbon nanotubes which will be helpful in drug delivery system.

His capability to handle the administrative works related to all these major research project works has been excellent and admirable.

Due to his contribution in the field, the scientific community unanimously elected him the *Vice Chairman of Semiconductor Society of India for two consecutive terms (1999 to 2003)*. He is also holding various positions in different academic societies. In addition, he also held the office of the Vice-President of Indian Physical Society during the session 1990-92. At present he is the president of Society for Nano Science and Technology and secretary of one of the prestigious “Society for Semiconductor Devices”.

He has been regularly visiting the International Centre for Theoretical Physics, Trieste, Italy to participate in various academic activities at the centre. He has been awarded the *Associate Membership of Third World Academy of Sciences, Abdus Salam*

*International Centre for Theoretical Physics, Trieste, Italy* to undertake the research work on the structural aspects of amorphous semiconductor.

Prof. Husain has also organized a number of National and International Conferences on various aspects of Physics of Materials. He has been Secretary/Joint Secretary of the steering committee of International Workshop on Physics of Semiconductor Devices (IWPSD) since 1997.

He has made about **29 foreign visits** including University of Cambridge - UK, University of Southampton - UK, University of Princeton, New Jersey, UNAM-Mexico, SIRIM-Malaysia, National University-Singapore, some of which resulted in scientific collaborations. He also visited National Tsing Hua University, Hsinchu, Taiwan for collaborative work on Nano-technology/Nanomaterials especially on carbon nanotubes. In Aug. 2006, Prof. Husain visited US Naval Research Lab. Washington and University of Arkansas, Fayetteville, where he delivered lectures on synthesis and characterization of carbon nanotubes. He has recently made a Collaborative visit and delivered a lecture at Institute of Ion Beam & Vacuum Technologies, Esslingen, Germany during 17-24 April, 2011.

Dr. Zakir Husain award 2014 was conferred on Professor Mushahid Husain for his remarkable contribution to the mathematical modeling of Nano-structures. He has also been awarded MRSI medal 2016 by Materials Research Society of India.

He has delivered 116 Invited Talks at National and International Forums. A number of popular talks on All India Radio and the National TV Channel (Doordarshan) have also been presented by him.

Prof. Husain has about **188 Research Papers** in reputed International Journals to his credit. He has produced **41 Ph.Ds**. He has also edited one book on "Advances in Physics of Materials."

Besides his scientific activities, he enjoys *the Membership of Academic councils (Central University of Panjab, Bhatinda, Agra University and ITM University, Gurgaon) and Board of Studies of different universities in India*. He was the "Elected Member" of the "Academic Council", Jamia Millia Islamia, from 2000 - 2003. He is the Member of "Board of Governors" of National Institute of Technology, Kurukshetra University.

Due to his vast teaching and research experience he has the honour of being Referee of various National/International journals. Among these, Physica B, X-ray Spectrometry and Central European Journal of Physics are worth mentioning. He has been nominated as Member of the Editorial Board of Indian Science Abstracts published by NISCAIR, Council of Scientific & Industrial Research, New Delhi.

Prof. Husain has also long experience in handling different administrative responsibilities of Jamia Millia Islamia, e.g. Coordinator-Central Admission Committee, In-Charge-Property Department etc. He was the Chairman of Central Admission Coordination & Monitoring Committee (CACMC) and also the Chief Coordinator of Ph.D. Admissions.

Prof. Husain possesses a unique combination of great academic excellence and administrative qualities.