

**Dr. M A Shah,** Ph.D Physics

PI

Special Laboratory for Multifunctional Nanomaterials (SLMN)

(Funded by Nano-Mission, Govt of India)

P.G Department of Physics (Founder &amp; Coordinator)

National Institute of Technology Srinagar (NIT Srinagar)

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### Major National Initiative @ NIT Srinagar

Initiative	Worked As	Year
Introduced P.G Programme <b>M.Sc Applied Physics</b> (60 years of its establishment)	Founder/ Coordinator	2015
Established <b>Special Laboratory for Multifunctional Nanomaterials (LMN)</b> under Nano-Mission	Principal Investigator (PI)	2014
INSPIRE Internship Programme of Govt of India <b>(P.M's Initiative for Science Toppers of Valley)</b>	Convener and Coordinator for Kashmir Region	Since year 2011
Organizer and Convener of <b>“International Conferences on Nanotechnology for better Living” NBL Series</b> with IITs/Universities	Convener and Chair	Since year 2012
Introduced & Conducted <b>NPTEL Examination in Kashmir Region</b>	Single Point Contact -IR	Since year 2013
Supported and Mentored <b>Super-30 for underprivileged and tribal students</b>	Advisor & Mentor	Since year 2013
Installed & Commissioned <b>SEM for Instrumentation Center</b> , Now under CRF	Member-Secretary/PI	2006/2007

### Education & Alma Mater

Degree	University/ Institute	Year
Doctor of Philosophy (Ph.D)	Jamia Millia Islamia, Central University, Delhi	[1994-1999]
Master of Science (M.Sc Physics)	University of Kashmir, (NAAC Accredited A++)	[1991-1993]
Bachelor of Science (B.Sc)	University of Kashmir, (NAAC Accredited A++)	[1987-1990]

*Sheikh Saqar Fellow: Visiting fellowships at JNCASR, Bangalore, in Sheikh Saqar Laboratory, worked with Prof. C N R Rao, number of times since year 2011.*

## Professional Career

S.No	Date	Position and Affiliation
01	[10 September, 1999 to 19 <sup>th</sup> April, 2000]	Temporary position as Lecturer/A.P, Department of Physics, National Institute of Technology Srinagar (J & K)
02	[20 <sup>th</sup> April, 2000 to 17 <sup>th</sup> March, 2009]	Assistant Professor, Department of Physics, National Institute of Technology Srinagar (J&K)
03	[18 <sup>th</sup> March, 2009 to 19 <sup>th</sup> June, 2011]	On Leave for teaching assignment, Department of Physics, <b>King Abdul Aziz University, Jeddah.</b>
04	[From June 2011 to date.....]	Associate Professor, P. G Department of Physics, NIT Srinagar

## Books Published

S.No	Name of Book	Publisher	Year
11	Proposed book on Nanotechnology		
10	<b>Lab in Sky:</b> A text book of Experimental Physics for UG/PG Students	New Delhi Publishers, New Delhi	2021
9	<b>Text Book:</b> Materials to Molecules: A Text Book for UG/PG (Modified version)	Publisher: I K International Pvt Ltd Delhi	2021
8	<b>Edited Book:</b> Nanotechnology Applications in Agriculture, Food Science, and Medicine	Publisher: IGI- Global, Hershey, Pennsylvania 17033-1240, USA	2020
7	<b>Text Book:</b> Science of Small: Nanotechnology	Publisher: M/S Wiley Pvt. Ltd New Delhi	2019
6	<b>Research Book:</b> Tribological and Mechanical Properties of Synthetic Diamond Coatings	Publisher: LAP Lambert Academic Publishing, Germany	2018
5	<b>Booklet:</b> Nanotechnology:- An Insight	Publisher: LAP Academic Publishing	2016
4	Journey of my Life for INSPIRE Students	Local Publisher, Srinagar	2014
3	<b>Edited Book:</b> Nanotechnology Applications for Improvements in Energy Efficiency and Environmental	Publisher: IGI- Global, Hershey, Pennsylvania 17033-1240, USA	2014
2	<b>Edited Book:</b> Functional Nanomaterials for Energy and Environmental Applications	Publisher: Trans Tech Publications, Switzerland	2012
1	<b>Text Book:</b> Principles of Nanoscience and Nano technology- Modified edition in progress	Publisher: Naroosa Publishing House, New Delhi/ Alpha Science Int.	2010

*The 11<sup>th</sup> book is proposed with the title, "Nanotechnology without Borders".*

## Books Chapters Published

S.No	Name of Book Chapter	Edited Book & Publisher	Year
01	TiO <sub>2</sub> : A versatile semiconducting material for environmental and antibacterial applications	Nanotechnology: Ethical and Social Implications, Nano and Energy Series Published by CRC press	2012
02	Al <sub>2</sub> O <sub>3</sub> Nanobricks via an Organic free route using water as solvent	Dynamic methods and process Advancement in Mechanical, Manufacturing and materials engineering Publisher: IGI- Global, Hershey, Pennsylvania 17033-1240, USA	2013
03	Preparation of Copper Oxide (CuO) Nanoparticles and their bactericidal Activity	Dynamic methods and process Advancement in Mechanical, Manufacturing and materials engineering Publisher: IGI- Global, Hershey, Pennsylvania 17033-1240, USA	2013
04	Electron Microscopy: A versatile tool in Nanoworld	Functional Nanomaterials for Energy and environmental Applications Publisher: Trans Tech Publication Switzerland	2013
05	Large scale production of MgO Nanostructures and their possible applications	Functional Nanomaterials for Energy and environmental Applications Publisher: Trans Tech Publication Switzerland	2013
06	Principles of Raman Scattering in CNTs:	Handbook of Research on Nanoscience, Nanotechnology and Advanced Materials Publisher: IGI- Global, Hershey, Pennsylvania 17033-1240, USA	2014
07	A Review of various Nanostructures to enhance the efficiency of solar-poton-conversion	Nanotechnology Applications for Improvements in Energy Efficiency and Environmental Management Publisher: IGI- Global, Hershey, Pennsylvania 17033-1240, USA	2015
08	Comparative Analysis carried out on Modern Indentation Techniques for the measurement of Mechanical Properties: A Review	Intechopen, On line Publishers, USA	Dec 2020

## Mega National Programmes Organized @ NIT

S.No	Financial Year	Sanction Order No/ Ref No.	Sanctioned Date	Period	Amount Received
1.	2012	Internship/2011	07-12-2011	17-21 March 2012	19.50 Lakhs
2.	2012	Internship/2012	25-04-2012	19-23 May 2012	32.50 Lakhs
3.	2012	Internship/2012	26-06-2012	22-26 August 2012	32.50 Lakhs
4.	2013	Internship/2013/S 133	23-10-2013	21-25 Nov 2013	16.25 Lakhs
5.	2014	Internship/2013/C196	18-12-2013	14-18 March 2014	16.25 Lakhs
6.	2015	Internship/2015	15-09-2015	14-18 Nov 2015	13.20 Lakhs
7.	2016	Internship/2016	15-09-2016	14-18 Nov 2016	13.00 Lakhs
8.	2017	Internship/2017	27-11-2017	22-26 Dec 2017	13.00 Lakhs
9.	2018	Internship/2018	28-06-2018	26-30 July 2018	13.00 Lakhs

## International Conferences Organized @ NIT S/IIT K

S. No	Name of the International Event	Date of the event	Participants
1.	5 <sup>th</sup> Edition of International Conferences on Nanotechnology for Better Living, ICNBL-16	25-29 May 2016	350
2.	6 <sup>th</sup> Edition of International Conferences on Nanotechnology for Better Living, ICNBL-16	07-11 April 2019	400
3.	7 <sup>th</sup> Edition of International Conferences on Nanotechnology for Better Living, ICNBL-16	07-11 April, 2021	Both Online & off-line

*Note: The first to 4<sup>th</sup> Edition were organized at IIT Kanpur.*

## Fellowships/Training Programmes

S.No	Programme	Institution	Year
01	UGC, Course in Physics	ASC, Jawaharlal Nehru University, New Delhi	2002
02	INSA Visiting fellowship	Crystal Growth Laboratory, Jamia Millia Islamia,	2003
03	UGC-Anna University Fellowships	Crystal Growth Center, Anna University, Chennai	2005
04	Training Programme on Electron Microscopy	Arranged by Hi-Tachi Singapore	2006
05	Visiting fellowship	DRDO- JNCASR, Bangalore	2007
06	Training Programme on Electron Microscopy	SAIF, Punjab University, Chandigarh	2008
07	Sheikh Saqar Fellowship	International Center, JNCASR, Bangalore	2011
08	GIAN Programme on Environmental Sciences	IIT Hyderabad	2016
09	GIAN Programme on Electronic Devices	Electrical Engineering , Jamia Millia Islamia, New Delhi	2017
10	Physics Lab. Workshop,	LUMS, Lahore, Sponsored by ICTP Italy	2018

## Major Projects @ NIT Srinagar

S. No	Title of the Projects	Funding Agency	Sanction Order no. & Date	Amount (Lakhs)
01	Optical Study in Melt grown crystals of polytypic materials	UGC, New Delhi	F-10-7/2004 (SR) 5 January 2004	0.50 Lakhs
02	Procurement of Scanning Electron Microscope and Crystal Growth Puller	NPIU, TEQIP	NIT-Srinagar/P/TQ/05 12 Sep 2005	100.00 Lakhs
03	Optical Properties of Cadmium Iodide polytypic crystals	UGC, New Delhi	32-16/2006 (SR) 19 March	03.77 Lakhs
04	Growth and Characterization of Nanomaterials employing Green Techniqu	DST, New Delhi	SR/NM/NS-04/2014 25 September 2014	175.00 Lakhs
05	Development of low machinery for the processing of various stones	DST, New Delhi	IDP/IND/14/2015 16 May 2015	60.00 Lakhs
06	Preparation and Properties of biodegradable composites and their application in food packaging	NPIU, TEQIP	Nil 18 June 2019	12.60 Lakhs
07	Nano-emulsions as carriers for targeted delivery of bioactive compounds	NPIU, TEQIP	Nil 18 June 2019	16.00 Lakhs

## Membership of Professional Bodies/Societies

S.No	Name of Professional Society	Number & Date
01	Member of Materials Research Society India	
02	Member of International Nanotechnology Society	
03	Member of Electron Microscopy Society of India	
04	Member of Electron Microscopy Society of Saudi Arabia	
05	Member Secretary of Indian Nano Biologist Association	

## Editorial Board Member

S.No	Name of Journal	Publishing company
01	International Journal of Biomedical Nanoscience and Nanotechnology (IJBNN)	
02	International Journal of Machining and Machinability of Materials (IJMMM)	
03	International Journal of Surface Engineering and Interdisciplinary Materials Science (IJSEIMS)	
04	Current Electronics and Telecommunication (CET)	
05	International Journal of Advanced Research (IJAR)	
06	Advanced Materials Proceedings (AMP)	
07	Applied Science Innovations (ASI)	

## List of Articles Published in Popular Magazines

S.	Title	Paper/Journal/Magazine	Date
01	NITs/IITs as Role model of Multidisciplinary Institutions	Daily Excelsior, Jammu	Sep 2 2020
02	Good bye to Pen-Paper Examination	Daily Excelsior, Jammu	Dec, 2 2020
03	New Education Policy 2020	KNS Monthly Magazine	July, 2020
04	Raising New foundations	Editorial, Greater Kashmir	30 Dec 2019
05	Better Materials for Better Living	Editorial, Greater Kashmir	April 7, 2019
06	A safe approach to Nanotechnology	Science Daily, USA	08/2009
07	Boiling up zinc oxide nanorods without toxic solvents	AAAS. Eurek Alert	2009

## Ph.D Students Guided

S.	Name of Student	Year	Title of Thesis
1.	Dr. Muzaffar Ahmad Boda	2017	
2.	Dr. Ashaq Hussian Sofi	2018	
3.	Dr. Farooq Ahmad Dar	2018	
4.	Dr. Sajadudin	2016	
5.	Dr. Kaleem Ah Najar	2016	
6.	Dr. Shabir Ahmad Akhoon	2016	
7.	Dr. Mudasir Ahmad Mir	2000	

## Details of References

S.	Name of Professor	Affiliation	E. Mail	Contact address
1.	Prof. Kamak K Kar Co-Convener NBL series	IIT Kanpur	<a href="mailto:kamalkk@iitk.ac.in">kamalkk@iitk.ac.in</a>	(9415081153)
2.	Prof. A.M Wani Former Director NIT Srinagar	NIT Srinagar	<a href="mailto:amwani011@yahoo.co.uk">amwani011@yahoo.co.uk</a>	(9419089786)
3.	Prof. K L Chopra Former Director IIT Kgp	IIT Kharagpur	<a href="mailto:choprakl@gmail.com">choprakl@gmail.com</a>	9213433266)
4.	Prof. Rajat Gupta Former Director NIT Srinagar	NIT Srinagar	<a href="mailto:rguptanitsri@gmail.com">rguptanitsri@gmail.com</a>	(9077490190)
5.	Dr. M J Zarabi Former Chairman, NIT Srinagar	NIT Srinagar	<a href="mailto:zarabi@masamb.com">zarabi@masamb.com</a>	(9810055795)

### Outreach Activities:

Submitted Proposal to Govt. of Jammu and Kashmir for establishment of SAINT-Srinagar Advanced Institute of Nanotechnology, which could be an Umbrella Institution for all Universities & Colleges.

### **My strength:**

I am blessed with some unique leadership qualities, which include:-

- I am a competent manager with a broad knowledge of academic matters
- I am able to face any academic challenge and can address issues during crises
- I am an inspiring leader who has the ability to connect with and command the respect - of diverse people across the any organization/institution.
- I have a good hold on my subject, the emerging technology-Nanotechnology.
- I am also blessed with patience and highest degree of humility.
- I have the capability to manage the things single handedly
- I am writing scholarly articles on issues which need to be changed in 21<sup>st</sup> Century.

### **My Philosophy:**

I am fortunate to have two decades of continuous teaching experience, at National Institute of Technology Srinagar and in some of the most prestigious Universities of Middle East, which has enabled me to develop a teaching philosophy of my own. I believe that a personal touch is essential for a healthy teacher – student relationship. With the diversity of our community reflecting in our classroom (students from all parts of country), it is also critical to identify ways to reach out to each individual. I also believe, teaching is a challenging and onerous task and when it is well done, it is most satisfying.

I believe that the students must be treated with respect and the classroom must be free from undue anxiety. Openness, honesty and ability to maintain trust are highly conducive to effective learning. I have found that, for higher degree students, it is particularly important to obtain feedbacks about their current preparedness and problems they face with learning. Finally, as a committed teacher, I am aware of my obligations and responsibilities to uphold the reputation of the University I am working for. As a teacher, I ‘preach’ my students to adopt Nanotechnology as a way of life and try to impart sense of responsibility towards the society and our nation. Inspired by the revolutionary and emerging area of Nanosciences and its impact on common masses, I take this privilege to sow the seeds of Nanoscience in the beautiful valley of Kashmir. People in general and students in particular should know how science of small can benefit us in our day to day life and can help to change the life of our children and to their children.

### **My Associations:**

I am honoured many times as a visiting scientist in many prestigious institutions and have worked with the eminent personalities. I explored versatile technique “**Safe way to Nanotechnology**” for the synthesis of oxide nanomaterials, though still in progress and practice. I am a member of many science academies and societies and work has been cited by number of scientific reporters as well as scientific media. Visited around a dozen countries and delivered invited/key note lectures, besides being resource persons on many scientific occasions within the country. I am being credited for many national and international initiatives at NIT Srinagar. While organizing mega scientific events single handedly, was drizzle with many compliments including Kohi-Noor of Kashmir/ One-man Army/ Nano-man.

*Dr. Shah Mohammad Ashraf*

## Invited/Special Lectures at International Conferences

- ❖ Delivered 10 lectures on “Faculty Development Programmes” in many institutions across country during Covid pandemic through on line mode.
- ❖ Invited talk delivered on Molecules to Materials to National Workshop in NIT Surat on 18<sup>th</sup> of Dec 2020.
- ❖ Changing World of **Electron Microscopy** delivered to Govt Institute of Technology Vellore on 4<sup>th</sup> Dec 2020
- ❖ Resource Person for virtual lecture on, “Nanoscience for Better Life” on 7<sup>th</sup> July 2020. Received good response and was viewed by more than 6000 Scientists.
- ❖ Conducted an On line Webinar on, “Electronics and its application” for M.Sc Physics Students.
- ❖ Resource person on Science Day at Institute of Mathematical Sciences on 11<sup>th</sup> March 2020, with a title, Science needs Patience
- ❖ As **Chief Guest** at SSM College of Engineering on Science day on 5<sup>th</sup> March, 2020. The talk was on Alfred Nobel
- ❖ Invited Resource Person at UGC Academic Staff College of KU in a refresher Course in Feb 2020.
- ❖ Invited speaker at Rasal Al Khima during IMWAM-20 from 22-25 Feb 2020
- ❖ Interaction with the BITS Pillani Dubai Faculty on Impact of Nanotechnology across the Globe on 26<sup>th</sup> Feb 2020.
- ❖ Invited Lecture at Academic Staff College Kashmir University on 18-11-2019 on, “Size and Shape matters in Small Science”.
- ❖ Invited Lecture at Gandhi Memorial College Srinagar in July 2019 during a National Workshop in nanotechnology
- ❖ Invited Lecture at Central University Kashmir in May 2019 during a lecturer series organized by Central University
- ❖ Expert examiner of P.G Students at Dental College Srinagar and delivered a lecture on Graphene.
- ❖ Chief Guest and an Invited speaker on Science day in Islamic University of Science & Technology, Awantipora on 28 Feb 2018
- ❖ Invited speech in SSM College of Engineering with Hon’ble Chairman Dr. M J Zarabi
- ❖ Invited speaker in Academic Staff College, Kashmir University on 24 Feb 2016



- ❖ Key Note Speaker at the "First International Conference of Pharmacy and Health Science 2014 (ICPHS 2014)" to be held in the Faculty of Pharmacy and Health Sciences, University of Kuala Lumpur, Malaysia from March 8-10, 2016.
- ❖ Speaker in the annual meeting of INSPIRE Programme held in KIIT, Orissa from March 29-31, 2014
- ❖ Mentor/ Speaker in the INSPIRE Programme held in the Nigeen Club by NIT Srinagar from March 2014
- ❖ Invited Lecture on SMALL SCIENCE at Academic Staff College, KU Feb, 2014.
- ❖ Invited Lecture on Nanotechnology in day to day life at Academic Staff College, KU Feb, 2014.
- ❖ Mentor/ Speaker in the INSPIRE Programme held in the Nigeen Club by NIT Srinagar from November 21-25, 2013
- ❖ Invited Lecture on Technology at its limits, delivered in Academic Staff College, University of Kashmir
- ❖ Mentor/ Speaker in the INSPIRE Programme on Arrival of New science in INSPIRE Programme from 26-30 August, 2012.
- ❖ Mentor/ Speaker Nanotechnology and New Generation in INSPIRE Programme from 17-21 March, 2012.
- ❖ Environmental summit, delivered in SKICC in 2011
- ❖ Invited Lecture on A Tiny Revolution in Food Technology, Delivered in Food Technology, University of Kashmir on 15<sup>th</sup> Oct. 2011.
- ❖ Invited Lecture on Nanotechnology and Global Issues in Academic Staff College, Srinagar in 2011.
- ❖ Invited Lecture on Nanomaterials in Medicine, special lecture in Center of Excellence of Genomic Medicines, King Abdul Aziz University, Jeddah on 9<sup>th</sup> March, 2011.
- ❖ Invited Lecture on A novel rout to prepare Fe<sub>3</sub>O<sub>4</sub> nanostructures for medical applications in 4<sup>th</sup> science conference in Taybah University, Al-Medina on 25<sup>th</sup> March, 2010.
- ❖ Invited Lecture on Fast route to produce MgO nanoflakes with water, delivered at King Saud University, Saudi Arabia in April, 2009.
- ❖ Invited Lecture on Something happened on the way to the Forum, delivered in Physics department, Taif University, Taif in April 2009.

*Speaker on many occasions in Schools and Colleges on Nanotechnology*

## Publications of Shah'S Nano Group @ NIT Srinagar

S. No.	Authors	Title	Journal	Vol./page	Year
1	Mir M. A, Shah, M. A, & Ganai P.A.	Nanoporous anodic alumina (NAA) prepared in different electrolytes with different pore sizes for humidity sensing	Journal of Solid State Electrochemistry	24:1679–1686	2020
2	Mir J. F., Rubab, S., & Shah, M. A	Hematite ( $\alpha$ -Fe <sub>2</sub> O <sub>3</sub> ) Nanosheets with Enhanced Photo-electrochemical Ability fabricated via single step Anodization	Chemical Physics Letters	Volume 753, 137584	2020
3	Mir M. A, Shah, M. A, & Ganai, P. A	Dielectric study of nanoporous alumina fabricated by two-step anodization technique	Chemical Papers	1-11	2020
4	Mubashir Qayoom; Ruqiyah Bhat; K. Asokan; M. A Shah, G.N Dar	Unary doping effect of A <sup>2+</sup> (A= Zn, Co, Ni) substituted iron oxide nanostructures on structural, electrical and magnetic properties	Journal of Materials Science: Materials in Electronics		2020
5	Tantray, A. M, & Shah, M. A	Photo electrochemical ability of dense and aligned ZnO nanowire arrays fabricated through electrochemical anodization	Chemical Physics Letters	Volume 747 137346	2020
6	A. S Gautam, N K Dilwaliya, A Srivastava, S Kumar, K Baudha, D Singh, M A Shah and K singh	Temporary reduction in air pollution due to anthropogenic activity switch off during covid 19 lockdown in Northern parts of India.	Environmental Development and sustainability		2020
7	A Mishra, S Basumallick, Albert Lu, Helen Chiu, M. Ashraf Shah, Yogesh Shukla, A Tiwari	Healthier Healthcare Management Models for COVID-19	Journal of infection and health care		2020
8	Mir, J. F, Rubab, S, & Shah, M. A	Photo-electrochemical ability of iron oxide nanoflowers fabricated via electrochemical anodization	. Chemical Physics Letters	741, 137088	2020
9	Boda, M. A., Shah, M. A., Khan, M., & Çırak, Ç	Enhancement in Photo electrochemical ability via re-engineering the band gap of multi-podal titania nanotubes on functionalizing with copper oxide nano-cubes	Applied Surface Science	499, 143965	2020
10	Henam, S. D, Ahmad, F, Shah, M. A, Parveen, S., & Wani, A. H	Microwave synthesis of nanoparticles and their antifungal activities	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy	213, 337-341	2019

11	Najar, K. A., Sheikh, N. A., Butt, M. M., Mushtaq, S., & Shah, M. A	Engineered Synthetic Diamond Film as a Protective Layer for Tribological and Machining Applications	A Review. Journal of Bio-and Tribo-Corrosion	5(3), 59	2019
12	Mir, M. A., Shah, M. A., & Ganai, P. A.	Effect of Etching on Nanoporous Anodic Alumina.	Iranian Journal of Science and Technology,	43(5), 2651-2655	2019
13	Kaleem Ahmad Najar, N. A. Sheikh, M. Mursaleen Butt, S Mushtaq, M. A. Shah	Engineered Synthetic Diamond Film as a Protective Layer for Tribological and Machining Applications	A Review. Journal of Bio-and Tribo-Corrosion	59(5)	2019
14	HS Devi, AH Sofi, TD Singh, MA Shah	Facile Hydrothermal Synthesis of Cu and Al Oxide Nanoparticles for Photodegradation of Chlorpyrifos	Journal of nanoscience and nanotechnology	19 1-7	2019
15	Henam Sylvia Devi, Muzaffar Ahmad Boda, M. A. Shah, Shazia Parveen and AH Wani	Green synthesis of iron oxide nanoparticles using Platanus orientalis leaf extract for antifungal activity	De gruyter	Volume 8(1)	2018
16	Sofi, A. H. and Shah, M. A	Structural and Electrical Properties of Copper Doped $\text{In}_2\text{O}_3$ Nanostructures Prepared by Citrate Gel Processes	Materials Research Express	Vol 6(4)	2018
17	Muzaffar Ahmad Boda, and M. A. Shah	Enhanced photo-electrochemical efficiency by reducing recombination rate in branched $\text{TiO}_2$ nanotube array on functionalizing with ZnO crystals	Materials Research Express	Vol : 5 No: 6	2018
18	F. A. Dar and M. A. Shah	Low temperature fabrication of $\text{Al}_2\text{O}_3$ nan-ostrips and their enhanced dielectric property	Mater. Res. Express	Vol 5 No: 1	2018
19	K. A. Najar, N. A. Sheikh, M. Mursaleen Butt and M. A. Shah	Enhancing the Wear Resistance of WC–Co Cutting Inserts using Synthetic Diamond Coatings	Industrial Lubrication and Tribology,	Volume 70(7)	2018
20	S. H. Din, M. A. Shah, and N. A. Sheikh,	Tribological Performance of Titanium Alloy Ti–6Al–4V via CVD–diamond Coatings	Journal of Superhard Materials, Springer	Vol. 40(26-39)	2018
21	Boda, M. A., & Shah, M. A	Fabrication of $\text{ZnFe}_2\text{O}_4/\text{TiO}_2$ nanotube array composite to harness the augmented photocurrent density under visible light	Applied Physics A	124(1), 55	2018
22	Dar, F. A., & Shah, M. A	Structural, morphological and dielectric properties of Li-doped $\text{Al}_2\text{O}_3$	Applied Physics A	124(7), 513	2018
23	Najar, K. A., Sheikh, N. A., Butt, M. M., & Shah, M. A	Enhancing the wear resistance of WC–Co cutting inserts using synthetic diamond coatings	Industrial Lubrication and Tribology	70(7)	2018
24	M. A. Shah and A. H. Sofi	Study of the magnetic behavior of nanoparticles	American Journal of Nanoparticles	Vol. 2, No.1, 1-3	2018

25	Boda, M. A., & Shah, M. A.	Enhanced photo-electrochemical potential of Fe <sub>2</sub> O <sub>3</sub> modified TiO <sub>2</sub> nanotube array with multiple legs. Journal of Materials Science	Materials Electronics in	4596-4601 Vol : 5 No: 6	2018
26	Sofi, A. H., Shah, M. A., & Asokan, K	Structural, optical and electrical properties of ITO thin films	Journal of Electronic Materials	1344-1352	2018
27	Sofi, A. H., Shah, M. A., & Asokan, K	Structural, optical and electrical properties of ITO thin films	Journal of Electronic Materials	47(2), 1344-1352	2018
28	Boda, M. A., & Shah, M. A	Augmented photoelectrochemical efficiency of ZnO/TiO <sub>2</sub> nanotube heterostructures	Journal of Electronic Materials	46(11), 6698-6703	2017
29	Akhon, S. A., Sofi, A. H., Rubab, S., & Shah, M. A	Enhanced structural and electrochemical properties of LiMn <sub>2</sub> O <sub>4</sub> nanocubes	Journal of Electronic Materials	46(2), 992-998.	2017
30	Najar, K. A., Sheikh, N. A., & Shah, M. A	A comparative investigation of mechanical and tribological properties of multilayered CVD-diamond coatings: effect of boron doping	Advanced Materials Letters	8(9), 932-938	2017
31	Muzaffar Ahmad Boda, and M. A. Shah	Fabrication mechanism of compact TiO <sub>2</sub> nanotubes and their photo-electrochemical ability	Materials Research Express	Volume 4 No 7	2017
32	Din, S. H., Shah, M. A., & Sheikh, N. A	Deposition of dual-layer coating on Ti6Al4V. Surface Topography	Metrology and Properties	5(1), 015002	2017
33	L.M.Al-Harbi, H.M.Arafa, Mossalamy and M.A.Shah	Growth of zinc oxide (ZnO) nanorods and their optical properties	Modern Applied Science	Vol. 5, No. 2	2017
34	Sofi, A. H., Abubakr, B., & Shah, M. A	Enhancement of figure of merit of thermoelectric materials: a new theoretical approach	Thermophysics and Aero mechanics 23(2)	255-260. Springer	2016
35	A. H. Sofi & M.A. Shah	Nanotechnology: An Insight.	LAP Lambert Academic	978-3-659 84978	2016
36	Maini, A., Sofi, A. H., & Shah, M. A.	Agglomerated Copper Oxide (CuO) Nanostructures and Their Growth Mechanism,	Advanced Science Letters	22(4), 1042-1044.	2016
37	Sajad Hussain Din, M. A. Shah, N. A. Sheikh.	Effect of CVD-Diamond on the Tribological and Mechanical Performance of Titanium Alloy (Ti6Al4V).	Tribology in Industry	530(38 4):530-542	2016
38	Sajad Hussain Din, M. A. Shah, N. A. Sheikh, K. A. Najar, K. Ramasubramanian, S. Balaji, M. S. R Rao.	Influence of boron doping on mechanical and tribological properties in multilayer CVD diamond coating system.	Bulletin of Materials Science	39(7) 1753-1761	2016
39	Kaleem Ahmad Najar, Nazir Ahmad Sheikh, Sajad Din & M A Shah.	Effect of CVD-diamond coatings on the tribological performance of cemented tungsten carbide substrates	Jurnal Tribologi	9 (1-17)	2016

40	K. A. Najar, M. A. Shah and N. A. Sheikh.	Integrity of CVD-Diamond Coatings on Cemented Tungsten Carbide Substrate: Mathematical Analysis carried out for Calculating the Force of De-lamination and Load Bearing Capacity of Coating-substrate System.	Elixir Nanotechnology	90 (37463-3746)	2016
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*Besides, there are more than 100 abstracts published in Proceedings and have edited the proceedings of seven international conferences.*