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## Prof. B. K. Pandey

### Personal Information

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#### Professor & Head

Department of Physics and Material Sciences  
M. M. M. University of Technology, Gorakhpur  
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Residence Address---

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Physique---

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### Date of Birth

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Feb 20, 1975

### Education

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#### D. Phil. Physics:

H. N. B. Garhwal University Shrinagar Utrakhand , India

**Topic of the Thesis:** Band Structure in Organic Solids.

**Date of award:** 10.05.2006

**Thesis Supervisors:** Prof. G. K.Gupta and Prof. R. N. Gupta.

#### M.Sc. Physics (Electronics):

Department of Solid State Physics and Electronics, Dr. R. M. L. Avadh University  
Faizabad , U. P. , India, First-68.2.6%, July 1996.

#### B. Sc. With the subjects Physics, Chemistry and Maths :

Kamla Nehru. Institute of Physical and Social Sciences Sultanpur, U.P. India,  
First- 66%, July 1994.

**Intermediate:**

Maths Group, First-68.4%, Govt. Inter College Sultanpur, U.P. India, 1991  
(**Distinction in Maths**).

**High School:**

Science Group, First-74.4%, Intermediate College Gaura Kurebhar, Sultanpur, U.P.  
India, 1989 (**With Distinction in Science, Maths & Social Science**).

**Employment History**

<b>Name of Employer</b>	<b>Position held</b>	<b>From</b>	<b>To</b>	<b>Pay-Scale</b>	<b>Nature of Duty</b>
Vice-Chancellor, M.M.M.U.T Gorakhpur-273010	Professor	May,29 2019	Till Date	37400-67000, AGP Rs.10000/- Level 14	Teaching Research and Administration
Vice-Chancellor, M.M.M.U.T Gorakhpur-273010	Associate Professor	May.29, 2016	May28 2019	37400-67000, AGP 9000	Teaching, Research and Administration
Principal, M.M.M.E.C. Gorakhpur-273010	Assistant Professor (Reader)	Feb.22, 2009	May28 2016	15600-39100, AGP 8000	Teaching, Research and Administration
Principal, M.M.M.E.C. Gorakhpur-273010	Assistant Professor	Feb.22, 2004	Feb.21 , 2009	15600-39100, AGP 7000	Teaching, Research and Administration
Principal, M.M.M.E.C. Gorakhpur-273010	Lecturer	Feb.22, 1999	Feb.21 , 2004	8000-275-13500	Teaching, Research and Administration
Principal, M.M.M.E.C. Gorakhpur-273010	Lecturer (Adhoc)	July11 , 1998	Feb.21 , 1999	6000=00 Consolidated	Teaching Research and Administration
Manager K. N. I. P. S.S. Sultanpur	Lecturer (Adhoc)	Nov.26, 1996	July., 1998	6000=00 Consolidated	Teaching, Research and Administration

## **Research Interest**

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Research interest includes Solid State Physics, Condensed Matter Physics, Thermoelastic and Physical properties of bulk and Nano materials and nanofluids.

## **Publications**

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### **Books Published**

1. **Dr. B.K.Pandey** & Sujeet Chaturvedi, Engineering. Physics Vol. 1. Cengage Learning Pvt. Ltd, (Thomson) 2009. ISBN:978-81-315-1178-7
2. **Dr. B.K.Pandey** & Sujeet Chaturvedi, Engineering. Physics Vol. 2. Cengage Learning Pvt. Ltd, (Thomson) 2010. ISBN:978-81-315-1320-0
3. Edited Proceeding on Active and smart materials, Editors **Dr. B. K. Pandey** and Dr. D. K. Dwivedi. ISBN: 938206210-6, 2012, Excel India Publisher.
4. **Pandey, Brijesh Kumar** & Sujeet Chaturvedi, Engineering Physics, 1/e, pages 892 (All India Edition) Cengage Learning Pvt. Ltd, (Thomson) 2012. ISBN: 978-81-315-1761-1
5. **Pandey, B. K.** & Sujeet Chaturvedi, Engineering Physics, 1/e, pages 948, Cengage Learning Pvt. Ltd, (Thomson) 2013. ISBN: 978-81-315-1967-7.
6. **Dr. B. K. Pandey** (Executive Editor) International Journal of Current Science and Technology, ISSN No. 2278-6198.
7. Edited book on “Materials Science and Technology”, Editors **Dr. B. K. Pandey** and Dr. D. K. Dwivedi. ISBN: 978-93-8422-01-1, 2014, Victorious Publishers India.
8. **Dr. B. K. Pandey** (Managing Editor) Pacific Journal of Humanities and Social Sciences, ISSN No. 2349-0888, June-2014
9. Edited Proceeding on Recent Advances in Chemical and materials Science, Editors **Dr. B. K. Pandey**, Dr. P. P. Pande and Dr. D. K. Dwivedi. ISBN: 978-93-84224-25-7, 2015, Victorious Publishers India.
10. **Dr. B. K. Pandey** as contributor in the 18 Chapters of Book “ Physics for Scientists and Engineers 4e” by Rendall D. Knight Published by Pearson Education Limited. ISBN-9781292157429 ( Reg. 00872828) of Edinburgh Gate, Harlow, Essex, CM20 2JE, 2016

11. **Dr. B. K. Pandey**, H. D. Sharma, S. Chaturvedi and R. S. Pandey Pandey, Applied Physics-I, pages 444, Cengage Learning Pvt. Ltd, (Thomson) 2016. ISBN: 978-81-315-3247-8.
12. **Dr. B. K. Pandey**, H. D. Sharma, S. Chaturvedi and R. S. Pandey Pandey, Applied Physics-II, pages 421, Cengage Learning Pvt. Ltd, (Thomson) 2017. ISBN: 978-81-315-2995-9.
13. **Dr. B. K. Pandey and S. Chaturvedi** Applied Physics, Cengage Learning Pvt. Ltd, (Thomson) 2017. ISBN: 978-93-866-5062-7. Pages-315 (Karunya)
14. **Dr. B. K. Pandey**, S. Chaturvedi Dr. R. Jothilakshmi E. Thanikaivelan, Dr. G. Murugesan, R. Bhuvaneswari and Dr. N. Muguntha Manikandan, Engineering Physics, Theory and Practical, pages 558, Cengage Learning Pvt. Ltd, (Thomson) 2017. ISBN: 978-93-866-5066-5.
15. **Dr. B. K. Pandey and S. Chaturvedi**, Engineering Physics-I, Cengage Learning Pvt. Ltd, (Thomson) 2018. ISBN: 978-93-868-5822-1. Pages-384 (Anna Edition).
16. **Dr. B. K. Pandey and S. Chaturvedi**, Engineering Physics-II, Cengage Learning Pvt. Ltd, (Thomson) 2018. ISBN:978-93-868-5887-0. Pages 346 (Anna University).
17. **Dr. B. K. Pandey and S. Chaturvedi**, T Vijaya Krishna, T. Madhu Mohan Applied Physics, Cengage Learning Pvt. Ltd, (Thomson) 2019. ISBN: 978-93-866-6807-3. Pages 233 (JNTU Hyderabad).
18. **Dr. B. K. Pandey**, Manoj K Harbola, T Vijaya Krishna, T. Madhu Mohan and S. Chaturvedi, Physics, Cengage Learning Pvt. Ltd, (Thomson) 2019. ISBN:978-93-86668-74-5. Pages 552 (WBTU).
19. **Dr. B. K. Pandey**, S. Chaturvedi, Ch. Srinivas, Ch. Seshu Babu and E. Laxmi Narsaiah, Engineering Physics, Cengage Learning Pvt. Ltd, (Thomson) 2019 (May). ISBN:978-93-86668-21-9. Pages 538 (B.V.R I. T. Telangana).
20. **Dr. B. K. Pandey and Debashish Panda**, Engineering Physics, Cengage Learning Pvt. Ltd, (Thomson) 2019 (July), ISBN: 978-93-53501-03-7. Pages-363 NIST, Udisa edition.

21. **Dr. B. K. Pandey**, T. Vijaya Krishna, T. Madhu Mohan, Manoj K. Harbola, S. Chaturvedi, Applied Physics (JNTU, HAK), Cengage Learning Pvt. Ltd, (Thomson) 2020 (July), ISBN: 978-93-53502-75-1. Pages-454.

22. **Dr. B. K. Pandey**, T. Vijaya Krishna, T. Madhu Mohan, Manoj K. Harbola, S. Chaturvedi, Engineering Physics (JNTU, HAK), Cengage Learning Pvt. Ltd, (Thomson) 2020, ISBN: 978-93-53502-85-0.

### **(A) Publications in International Journals**

- 1. Title of Paper:** Model dispersion characteristics of a single mode metal-coated optical wave guide with guiding region cross section bounded by two involuted spirals  
**Journal Details:** Optik International Journal of light and electron optics, Optik, Vol. 5, 211–214, 2000 ISSN 0030-4026  
**Authors:** P.C. Pandey, **B.K.Pandey** & S.P. Ojha  
**Impact Factor: 0.507 , SCI**
- 2. Title of Paper:** Dielectric Behaviour of Lead Nitrate with its Phase Transitions  
**Journal Details:** Asian Journal of Chemistry, Vol. 20, No.1 (2008),736-740.  
**Authors:** SurendraYadava, **B.K.Pandey**, S. P. Dubey and R.N.Gupta  
**Impact Factor: 0.247, ISSN: 09707077, SCIMago**
- 3. Title of Paper:** A.C. Conductivity of Anthrone  
**Journal Details:** International Journal Mat. Sci. Res. India, Vol. 5(1) 95-100 (2008)  
**Authors:** **B.K.Pandey** S. P. Dubey & S. Yadava,
- 4. Title of Paper:** Ferroelectricity and Phase Transitions in Disodium Hydrogen Orthophosphate  
**Journal Details:** Asian Journal of Chemistry, Vol. 20, No. 3 (2008).2051-2056.  
**Authors:** Surendra Yadava,**B.K.Pandey** and S.P. Dubey. **ISSN: 09707077**  
**Impact Factor: 0.247, SCIMago**
- 5. Title of Paper:** Ferroelectric Behaviour and Phase Transition of Barium Nitrate.  
**Journal Details:** International Journal Mat. Sci. Res. India, Vol. 7 (1), 307-310 (2010). **ISSN-0973-3469**  
**Authors:** B. K. Pandey, S. P. Dubey and G. K. Gupta.
- 6. Title of Paper:** Theoretical Prediction of Gruneisen Parameter for Bulk Metallic Glasses.  
**Journal Details:** Journal of Alloys and Compounds, vol.509, issue 11, pp. 4191 – 4197(2011) **ISSN: 0925-8388**

**Authors:** A. K. Pandey, **B. K. Pandey**, Rahul.  
**Impact Factor: 2.137, SCIMago**

7. **Title of Paper:** A. C. Conductivity Measurement on Compressed Pellet of Pyrene.  
**Journal Details:** International Journal of Electronic and Electrical Engineering, Vol. 4, No. 2, pp.69-75 (2011). ISSN: **2231–5284**.  
**Authors:** **B.K. Pandey**
8. **Title of Paper:** Production of Bio-electricity during Wastewater Treatment Using a Single Chamber Microbial Fuel Cell.  
**Journal Details:** International Journal of Engineering , Science and Technology, Vol. 4, No. 3 (2011) pp. 42-47. **ISSN: 2227-524X**  
**Authors:** **B. K. Pandey**, Vishwadeep Mishra and Shweta Agrawal.
9. **Title of Paper:** Phase Transitions in the Mixed Compound of Lead (II) Tartrate and Silver oxide.  
**Journal Details:** International Journal of Materials Physics, vol. 2 No.2 (2011) pp. 109-114. ISSN 0973-4589  
**Authors:** **B. K. Pandey**, S. P. Dubey and S. Yadava
10. **Title of Paper:** Theoretical prediction of elastic properties of garnets.  
**Journal Details:** Elixir Appl. Chem. 39 (2011) pp. 5063-5064. ISSN: 2229-712X  
**Authors:** Anjani K. Pandey, **Brijesh K. Pandey**, Abhay P. Srivastava and Chandra K. Singh.  
**Current Index Copernicus, Poland Value (ICV) 5.09**
11. **Title of Paper:** Non Inverted Isothermal Equation of state for NaCl-CsCl type Crystals.  
**Journal Details:** M. J. Condensed matter, vol. 13(1) March (2011) pp. 12-.23  
**Authors:** Anjani K. Pandey, **Brijesh K. Pandey**. **ISSN No. 1114-2073**  
**Impact Factor: 0.251**
12. **Title of Paper:** Analysis of isothermal EOS for NaCl under extreme compression.  
**Journal Details:** Elixir Crystal Research Tech. 44C (2012) 7420-7430  
**Authors:** Anjani K. Pandey, **Brijesh K. Pandey**, C. K. Singh and Abhay P. Srivastava  
**Impact Factor: 1.054**
13. **Title of Paper:** Gruneisen parameter for bulk metallic glasses under extreme compression.  
**Journal Details:** Elixir Appl. Chem. 45 (2012) 7781-7786: ISSN: **2229-712X**  
**Authors:** Anjani K. Pandey, **Brijesh K. Pandey** and Chandra K. Singh  
**Current Index Copernicus, Poland Value (ICV) 5.09**

- 14. Title of Paper:** Theoretical Prediction of Thermal Pressure for Solids.  
**Journal Details:** American Institute of Physics Conf. Series, June 2012, Vol. No.1447 pp-115-116. ISSN: 0094-243X  
**Authors:** B. K. Pandey, Anjani Kr. Pandey and Chandra Kumar Singh  
**Impact Factor: 2.169**
- 15. Title of Paper:** Ferroelectric Phase Transition In Sodium Dihydrogen Orthophosphate.  
**Journal Details:** Indian Streams Research Journal Volume 3, Issue. 3, April. 2013 pp-2-8 . ISSN-2230-7850  
**Authors:** Surendra Yadava and B. K. Pandey  
**Impact Factor: 0.2105**
- 16. Title of Paper:** Theoretical Prediction of Elastic Constants For MgO  
**Journal Details:** International Journal of Modern Physics, Vol. 22 (2013) pp-24-27. ISSN 0217751X  
**Authors:** B. K. Pandey, Anjani Kr. Pandey and Chandra Kumar Singh  
**Impact Factor: 1.053, SCIMago**
- 17. Title of Paper:** Elastic Moduli of Pyrope Rich Garnets  
**Journal Details:** American Institute of Physics Conf. Series June 2013, Vol.1536 (2013 pp-769-770); doi: 10.1063/1.4810454. ISSN: 0094-243X  
**Authors:** B. K. Pandey, Anjani Kr. Pandey and Chandra Kumar Singh
- 18. Title of Paper:** A Study of Azimuthal Modulations of the Solar Wind Influence of Magnetic Field.  
**Journal Details:** Golden Research Thoughts, Vol -2 , ISSUE –12, June. 2013. ISSN: 2231-5063  
**Authors:** A.K.Ray, S.P.Dubey and B. K. Pandey
- 19. Title of Paper:** Validity of isothermal EOS for Olivine geophysical mineral.  
**Journal Details:** Elixir Appl. Chem. 61 (2013) 17153-17158: ISSN: **2229-712X**  
**Authors:** B. K. Pandey, A. K. Pandey and C. K. Singh  
**Current Index Copernicus, Poland Value (ICV) 5.09**
- 20. Title of Paper:** Theoretical prediction for the validity of isothermal EOS for geophysical minerals.  
**Journal Details:** Elixir Appl. Chem. 61 (2013) 17166-17170  
**Authors:** B. K. Pandey, A. K. Pandey and C. K. Singh  
**Current Index Copernicus, Poland Value (ICV) 5.09**
- 21. Title of Paper:** Validity of EOS for the Prediction of Isothermal Bulk Modulus for Halides and Oxides at Higher Temperatures.  
**Journal Details:** Progress In Science and Engineering Research Journal

(PISER) 14, Volume 02, Issue: 04/06, August, 2014, pp. 128-131. ISSN 2347-6680 (E)

**Authors: B. K. Pandey**

**Previous evaluation SJIF 2012: 3.565**

**22. Title of Paper:** Equation of state for the prediction of compression Behaviour of Alkali Iodides

**Journal Details:** Der Pharma Chemica, Vol.7(1), Feb. 2015, pp. 111-115. ISSN 0975-413X.

**Authors:** B. K. Pandey,, H. K. Rai, A. K. Pandey, C. K. Singh and A. P. Srivastava.

**Previous evaluation : SCIMago Impact Factor 0.32**

**23. Title of Paper:** Theoretical prediction of equation of state for lithium halides

**Journal Details:** Der Pharmacia Lettre, Vol. 7(1), Feb. 2015, :113-117. ISSN 0975-5071.

**Authors:** Brijesh K. Pandey, Anjani K. Pandey, Abhay P. Srivastava and Chandra K. Singh

**Previous evaluation : SCIMago IF: 0.24**

**24. Title of Paper:** Theoretical Prediction of Gruneisen Parameter & Debye Temperature for BiFeO<sub>3</sub>.

**Journal Details:** IJARSE, Vol. No.4, Special Issue (02), February 2015, pp. 43-47. ISSN-2319-8354(E).

**Authors:** B. K. Pandey, A. K. Pandey and C. K. Singh

**25. Title of Paper:** Equation Of State For The Analysis Of Elastic Properties Of Silicate Perovskite

**Journal Details:** International Journal of Advanced Technology in Engineering and Science, Volume No 03, Special Issue No. 01, March 2015, pp.726-733. [www.ijates.com](http://www.ijates.com). ISSN: 2348 – 7550

**Authors:** B. K. Pandey, A. K. Pandey and Chandra Kumar Singh.

**26. Title of Paper:** Validity of High Pressure Isothermal Equation of State for Carbon Nanotubes

**Journal Details:** Research Journal of Physics (Science Alert) Volume 9 , Issue (1): 11-20, 2015, ISSN 1819-3463 / DOI: 10.3923/rjp.2015.

**Authors:** A.K. Pandey, H.K. Rai, **B.K. Pandey**, Abhay P. Srivastava and C.K. Singh

**27. Title of Paper:** Theoretical prediction of equation of state for semiconductors.

**Authors:** **Brijesh K. Pandey**, H. K. Rai, Anjani K. Pande and Chandra K. Singh

**Journal Details:** Int. J. Nanoelectronics and Materials, Vol. 9 (2) July 2016, pp.173-182.. **ISSN 2232-1535 IF. 1.735**

**28. Title of Paper:** Equation of State for the Compression of Nanocrystalline



Anatase TiO<sub>2</sub>.

**Authors: Brijesh K. Pandey**

**Journal Details:** Der Pharma Chemica, 2016, 8(18):163-167,ISSN 0975-413X.

**Previous evaluation : SCIMago Impact Factor 0.32**

**29. Title of Paper:** Equation of State for the Compression Behaviour of Nanocrystalline Nickel

**Authors: Brijesh K. Pandey**

**Journal Details:** Int. J. Chem. Sci.: 14(4), 2016, 2673-2680, ISSN 0972-768X.

**Previous evaluation : SCIMago IF 1.00**

**30. Title of Paper:** Size Dependence of Lattice Parameters of Spherical Metallic Nanosolids

**Authors: Brijesh K. Pandey**

**Journal Details:** Journal of Chemical and Pharmaceutical Research, 2017, 9(2):204-209, ISSN 0975-7384.

**Previous evaluation : SCI IF 0.543**

**31. Title of Paper:** Elastic Properties of Mantle Minerals at Different Temperatures.

**Authors:** Chandra Kumar Singh, **Brijesh K. Pandey**, Anjani K Pandey and Harendra Kumar Rai

**Journal Details:** International Journal of Materials Science, Vol.12 (1), 2017, pp.46-48. ISSN : 0973-4589.

**UGC Journal List**

**32. Title of Paper:** Finite strain High Pressure Equation of State's for Bulk Metallic Glasses .

**Authors:** Anjani K Pandey, Harendra K Rai, **Brijesh K Pandey** and Swayam P Shukla.

**Journal Details:** International Journal of Materials Science, Vol.12 (1), 2017, pp.15-25. **ISSN 0973-1881**

**UGC Journal List**

**33. Title of Paper:** High Pressure Isothermal Equation of State for Bulk Metallic glasses.

**Authors:** Anjani K Pandey, Harendra K Rai, **Brijesh K Pandey** and Ajay Kr. Mishra.

**Journal Details:** International Journal of Materials Science, Vol.12 (1), 2017, pp.58-66.

**UGC Journal List**

**34. Title of Paper:** Prediction of elastic moduli of metallic nanoparticles

**Authors: Brijesh K Pandey** and Ratan L. Jaiswal.

**Journal Details:** International Journal of Materials Science, Vol.12 (1), 2017,

pp.85-87.

**UGC Journal List**

**35. Title of Paper:** Theoretical Prediction of Equation of State for Carbon Nanotube Bundle.

**Authors:** Brijesh K. Pandey, Chandra Kumar Singh, Anjani K Pandey and Harendra Kumar Rai.

**Journal Details:** International Journal of Materials Science, Vol.12 (1), 2017, pp.49-8752.

**UGC Journal List**

**36. Title of Paper:** Prediction for the Debye Temperature of Metallic Nanoparticles

**Authors:** Brijesh K. Pandey, Ratan L. Jaiswal

**Journal Details:** International Journal of Nanotechnology and Applications ISSN: 0973-631X Volume 11, Number 1 (2017), pp. 81-90.

**UGC Journal List**

**37. Title of Paper:** Pressure Dependent Compressibility of Single Carbon Nanotubes and Graphite

**Authors:** Brijesh K. Pandey, Anjani Kumar Pandey and Sachin

**Journal Details:** International Journal of Applied Chemistry, Volume 14, Number 4 (2018) pp. 271-279. ISSN 09731792.

**SCIMago IF- 0.5**

**38. Title of Paper:** Modelling for the Prediction of Melting Temperature for Metallic Nanoparticles

**Authors:** Sachin, Brijesh K. Pandey and Ratan Lal Jaiswal

**Journal Details:** Advanced Science, Engineering and Medicine Vol. 12(1), 27-30, 2020. ISSN: 2164-6627 **IF 0.987**.

**39. Title of Paper:** Poly(vinylidene fluoride-co-hexafluoropropylene) Polymer Electrolyte-Cum-Separator Membrane

**Authors:** Shiivani Gupta, Sarvesh Kr. Gupta, B. K. Pandey and A. K. Gupta

**Journal Details:** Advanced Science, Engineering and Medicine Vol. 12(1), 50-59, 2020. ISSN: 2164-6627 **IF. 0.987**

**40. Title of Paper:** Modeling of highly efficient and low cost  $\text{CH}_3\text{NH}_3\text{Pb}(\text{I}-\text{xCl})_3$  based perovskite solar cell by numerical simulation

**Authors:** Shambhavi Rai, B. K. Pandey and D. K. Dwivedi

**Journal Details:** Optical Materials, 100(2020) 109631, ISSN: 09253467, SCI IF **2.687**

**41. Title of Paper:** Modelling for the Study of Thermo-elastic Properties of Nanoparticles.

**Authors:** Shridhar Pathak, B. K. Pandey and Ratan Lal Jaiswal

**Journal Details:** Adv. Mater. Lett., 12(2) 2021, ISSN: 09763961, 0976397X  
DOI: 10.5185/amlett.2021.02165. **IF 1.150**

**42. Title of Paper:** Fabrication of Graphite Carbon Nitride- Based Film: An Emerged Highly Efficient Catalyst for Direct C-H Arylation Under Solar Light.

**Authors:** Surabhi Chaubey, Rajesh K. Yadav, Tae Wu Kim, Tara Chand Yadav, Tara Chand Yadav, Abhishek Kumar, D. K. Dwivedi, B. K. Pandey, and Atul P. Singh

**Journal Details:** Chinese Journal of Chemistry 39(3) March 2021, pp.633-639. ISSN: 1614-7065 DOI: <http://dx.doi.org/10.1002/cjoc.202000470>. **IF 3.826. SCI**

**43. Title of Paper:** Thermo-physical Behavior of Nanomaterials with the Change in Size and Shape

**Authors:** Ratan Lal Jaiswal, Brijesh Kumar Pandey, Dishani Mishra, and Huda Fatma.

**Journal Details:** International Journal of Thermodynamics (IJoT) Vol. 24 (No. 1), pp. 1-7, 2021. ISSN 1301-9724 / e-ISSN 2146-1511. doi: 10.5541/ijot.869865. **SCI**

**44. Title of Paper:** Modeling for the study of thermophysical properties of metallic nanoparticles

**Authors:** Ratan Lal Jaiswal and Brijesh Kumar Pandey

**Journal Details:** SN Applied Sciences Vol.3(4)(2021) <https://doi.org/10.1007/s42452-021-04478-8> published online 17 March 2021. **ISSN:** 2523-3963 (print), 2523-3971 (online) **SCI**

**45. Title of Paper:** Thermomagnetic Properties of Metal and Metal-oxide Nanoparticles

**Authors:** Ratan Lal Jaiswal and **B. K. Pandey**

**Journal Details:** Adv. Mater. Lett., (Accepted, on 27 March-2021) ISSN: 09763961, 0976397X. **SJR**

**46. Title of Paper:** Influence of polyethylene glycol plasticizer on the structural and electronic properties of PEO-Nal complex: a density functional study.

**Authors:** Shivani Gupta, A. K. Gupta, M.L. Verma and **B. K. Pandey**

**Journal Details:** *J Mol Model* 27, 155 (2021). <https://doi.org/10.1007/s00894-021-04763-8>. **SCI**

**47. Title of Paper:** Designing hole conductor free tin – lead halide based all-perovskite heterojunction solar cell by numerical simulation

**Authors:** Shambhavi Rai, B.K. Pandey, D.K. Dwivedi

**Journal Details:** Journal of Physics and Chemistry of Solids 156 (2021) 110168. (8 May 2021) <https://doi.org/10.1016/j.jpics.2021.110168>. **IF. 3.442 SCI**

(B) **National Journals**

1. Dielectric Behaviour of Alizarin Carmine  
R.N.Gupta ,G.K.Gupta & **B.K.Pandey**. Jour. Purv. Acad. Sci. Vol. 11  
(2005) pp 66-71. ISSN 0972-3498
2. Some Electro-optical Properties of Cholesteryl Linoleate  
**B.K.Pandey**, R.A. Yadav & R.N.Gupta Jour. Purv. Acad. Sci. Vol. 10  
(2004) pp 160-67 ISSN 0972-3498
3. Electrical Conductivity Measurement on Anthrone  
**B.K.Pandey** R.N.Gupta, &G.K.Gupta . Acta Ciencia Indica  
Vol.XXXIII,P.No. 3,329 (2007). ISSN 02537338
4. Optical and Electronic Properties of Silicon Nanostructures.  
**B. K. Pandey**, A. K. Pandey and R. K. Dwivedi, Inverties Journal of  
Science and Technology, Vol. 5 No. 2 (2012) 1-7. ISSN-0973-8940
5. Photoluminescence Spectra of Silicon Nanostructures  
**B.K. Pandey**, A.K. Pandey, G.K. Gupta and Dilip Kumar, Int. J. Curr. Sci.  
Tech. Vol. 1 No. 1, (2012) 87-93 ISSN-0973-8940
6. Measurement of Strain in Bone Joints using Birefringent Optical Fiber  
**B.K. Pandey**, A.K. Pandey, G.K. Gupta and Dilip Kumar, Int. J. Curr. Sci.  
Tech. Vol. 1 No. 1, (2012) 94-98 ISSN-0973-8940
7. Dielectric Behaviour and Phase Transition of Potassium Dihydrogen  
orthophosphate  
S. Yadav, **B.K. Pandey** and G.K. Gupta, Int. J. Curr. Sci. Tech., 2013:  
2(1):16-20 ISSN 22786198
8. Ferroelectricity in Molecular Solids  
Surendra Yadav, R. N. Gupta, G. K. Gupta, R. M. Yadav, Kumar P.  
Chandra and **B. K. Pandey**, Shodh Prerak, ISSN 2231-413X, Vol. No. III,  
Issue 2, April 2013.
9. Theoretical Calculations for Elastic Properties of MgB<sub>2</sub> under High Pressure  
**B. K. Pandey**, A. K. Pandey and C. K. Singh, Int. J. Curr. Sci. Tech., 2014:  
2(2):39-42.
10. Theoretical Prediction for the Pressure of NaF up to High Compression  
**B. K. Pandey**, Int. J. Curr. Sci. Tech., 2014: 3(1):07-12.
11. Theoretical Prediction of Grüneisen Parameter for Carbon Nano tube under  
Extreme Compression. **Brijesh K Pandey**, H.K. Rai, Chandra Kumar Singh and  
Anjani K Pandey., Int. J. Curr. Sci. Tech., 2017: 6(1):01-06

### **(C) Publications in the Proceedings of the National Conferences**

1. Phase transitions in Molecular Solids  
R.N.Gupta ,G.k.Gupta & **B.K.Pandey**, 6<sup>th</sup> Conference Acad. Of Physical Sciences Feb. 6-8,2004 (Gorakhpur) p.144.
2. Dielectric behaviour of Barium Nitrate with temperature variation  
**B. K. Pandey**, S. P. Dubey & G. K. Gupta Proceeding of National Conference on Emerging Trends in Mechanical Engineering, Oct. 12-13,2009. (Gorakhpur) p.276-279.ISBN: 978-93-80043-39-5
3. Monitoring Industrial Pollution through Remote Sensing  
Vishalakcchi Ashok, **B. K. Pandey**, and R.K. Shukla Proceeding of National Conference on Emerging Trends in Mechanical Engineering, Oct. 12-13,2009. (Gorakhpur) p.256-260.ISBN: 978-93-80043-39-5
4. Optical Behaviour of Aluminium  
V. B. Saran, A. K. Srivastava and **Brijesh Kumar Pandey**  
National Conference on 'Emerging Trend of Active/Smart/Nano Material, Dept. of Applied Sciences, Feroz Gandhi Institute of Engineering and Technology Raebareli, 8, August, 2010.
5. Production of Bio-electricity during Wastewater Treatment Using a Single Chamber Microbial Fuel Cell.  
**B.K Pandey**, Vishwadeep Mmishra, Shweta Agrawal  
National Conference on 25-26 March 2011 on Recent Advances In Electrical Power And Energy System Management' organized by Electrical Engineering Deptt. at M.M.M. Engineering College Gorakhpur.
6. Theoretical Prediction of thermal pressure for garnets.  
**Brijesh K. Pandey**, Anjani K. Pandey, Chandra Kumar  
Proceeding of National Seminar on 23-24 March 2012 on Active and Smart Materials organized by Department of Applied Sciences. At M.M.M. Engineering College Gorakhpur, p. 25-28, ISBN:938206210-6
7. A New Rb lamp exciter circuit for Rb atomic clocks and studied on transition from ring to red mode.  
Savita Singh, Ritambhara Mishra, G M Saxena, **B. K. Pandey**  
Proceeding of National Seminar on 23-24 March 2012 on Active and Smart Materials organized by Department of Applied Sciences. At M.M.M. Engineering College Gorakhpur, p. 42-44, ISBN:938206210-6.
8. Variation Of Dielectric Costant Of Ni II Hydroxide Carbonate With Temperature. S. P. Dubey, **B. K. Pandey**,P. K. Singh, Kamlesh Kumar.

- Proceeding of National Seminar on 23-24 March 2012 on Active and Smart Materials organized by Department of Applied Sciences. At M.M.M. Engineering College Gorakhpur, p. 100-101, ISBN:938206210-6.
9. Theoretical prediction of Gruneisen parameter for MgO. H. K. Rai, Anjani K. Pandey, **Brijesh K. Pandey**, Chandra K. Singh. 7<sup>th</sup> National Conference on Thermophysical Properties(NCTP-2013) October 17-19, 2013. Christ Church College, Kanpur.
  10. Theoretical Prediction of Gruniesen Parameter for MgB<sub>2</sub>  
**B.K. Pandey** , A.K. Pandey , C.K. Singh and Sudhir Kumar Verma, Proceeding of National Conference on Materials Science and Technology (NCMST-14) March 10-11, 2014. Organized by Department of Applied Sciences M.M.M. University of Technology, Gorakhpur, India. p. 13-16, ISBN: 978-93-8422-01-1.
  11. Theoretical Prediction of Equation of State for Halide  
H.K. Rai , Abhay P. Srivastava , **Brijesh K. Pandey** , Chandra K. Singh and Anjani K. Pandey, Proceeding of National Conference on Materials Science and Technology (NCMST-14) March 10-11, 2014. Organized by Department of Applied Sciences M.M.M. University of Technology, Gorakhpur, India. p. 17-22, ISBN: 978-93-8422-01-1.
  12. Removal of Phenolic Acids from their Aqueous Solutions by Adsorption onto Activated Wheat Husk (AWH)  
Sudhir Kumar Verma, Abhay P. Srivastava , **B.K. Pandey** and A.K. Pandey. Proceeding of National Conference on Materials Science and Technology (NCMST-14) March 10-11, 2014. Organized by Department of Applied Sciences M.M.M. University of Technology, Gorakhpur, India. p. 23-31, ISBN: 978-93-8422-01-1
  13. Equation of State for the Analysis of Gruniesen Parameter for Pyrope Silicates.  
B. K. Pandey, H.K. Rai ,A. K. Pandey, Chandra Kumar Singh and S. K. Mishra, Proceeding of National Conference on Recent Advances in Chemical and Materials Science (NCRACMS-15) Feb. 23-24, 2015. Organized by Department of Applied Sciences M.M.M. University of Technology, Gorakhpur, India. p. 31-34, ISBN: 978-93-84224-25-7.
  14. Isothermal Equation of state for Antiferromagnetic Ferroelectric material at high compression  
H. K. Rai, Abhay P. Srivastava, Anjani K. Pandey, Chandra K. Singh and B. K. Pandey.  
Proceeding of National Conference on Recent Advances in Chemical and Materials Science (NCRACMS-15) Feb. 23-24, 2015. Organized by Department of Applied Sciences M.M.M. University of Technology, Gorakhpur, India. p. 35-39, ISBN: 978-93-84224-25-7.

15. Hydroxyl Radical Reactivity with Cytosine and Thymine: A Computational Study, Huma Farooqui, B. K. Pandey and Amarjeet Yadav, National Conference on Recent Advancement in Physical Sciences (NCRAPS-2020) (December 19-20, 2020) National Institute of Technology, Uttarakhand
16. Structural Effect on Cohesive Energy and Evaporation Temperature of Nanometals, Ratan Lal Jaiswal, and B. K. Pandey, National Conference on Recent Advancement in Physical Sciences (NCRAPS-2020) (December 19-20, 2020) National Institute of Technology, Uttarakhand

#### **(D) Publications in the Proceedings of the International Conferences**

1. Theoretical Prediction of Thermal Pressure for Solids.  
**Brijesh K. Pandey**, Anjani K. Pandey, and Chandra K. Singh, 56<sup>th</sup> DAE Solid State Symposium, (International), Dec.19-23, 2011, at SRM, University, Kattankulathur, Tamilnadu, India. AIP Conf. Proc. for SSPS 2011 June 2012, Vol. No.1447 pp-115-116. ISSN: 0094 243X  
**SCImago**
2. Theoretical Prediction of Elastic Constants For MgO  
**B. K. Pandey**, A. K. Pandey and C. K. Singh, International Conference on Ceramics 12-13<sup>th</sup> Dec.-2012, at Govt. Engineering College, Bikaner, Rajasthan. IJMPS Conf. Series for ICC 2012, Vol. No.22 ( May, 2013) pp-24-27. ISSN 2320-5148  
**SCImago**
3. Elastic Moduli of Pyrope Rich Garnets.  
**B. K. Pandey**, A. K. Pandey and C. K. Singh, International Conference on Recent Trends in Applied Physics and Material Science 1- 2, Feb.-2013, at Govt. Engineering College, Bikaner, Rajasthan. American Institute of Physics Conf. Series June 2013, Vol.1536 (2013 pp-769-770); doi: 10.1063/1.4810454.  
**SCImago**
4. Theoretical prediction of thermal pressure for NaCl.  
**B. K. Pandey**, A. K. Pandey and C.K Singh, International Conference on Nanoscience and Nanotechnology (ICNN-2013), has held in the Department of Applied Physics, School of Physical Sciences, Babasaheb Bhimrao Ambedkar University, at Lucknow during 18-20 Nov.2013(**Presented**)
5. Theoretical prediction for Elastic properties of BiFeO<sub>3</sub> at high compression  
H. K. Rai, Abhay P. Srivastava, Anjani K. Pandey, Chandra K. Singh and **B. K. Pandey**. International Conference on Nanoscience and Nanotechnology (ICNN-2013), has held in the Department of Applied Physics, School of Physical Sciences, Babasaheb Bhimrao Ambedkar University, at Lucknow during 18-20 Nov.2013(**Presented**)

6. Theoretical prediction of Gruneisen Parameter for NaCl Under Extreme Compression.  
H. K. Rai, Abhay P. Srivastava, Chandra Kumar Singh, Anjani K Pandey and **Brijesh K Pandey**. International Conference on Advanced Materials and Applications (ICAMA-2014) held at Centre of Material Sciences, University of Allahabad-India, during March24-26,2014.**(Presented)**
7. Theoretical Prediction of Gruneisen Parameter & Debye Temperature for BiFeO<sub>3</sub>. **B. K. Pandey**, A. K. Pandey and C. K. Singh International conference on Science Technology and Management (ICSTM-2015) held at YMCA, Connaught Place, New Delhi during 1<sup>st</sup> Feb. 2015. **(Presented)**.
8. Equation Of State For The Analysis Of Elastic Properties Of Silicate Perovskite. **B. K. Pandey**, A. K. Pandey and C. K. Singh International Conference On Recent Trends In Engineering Science And Management (ICRTESSM-2015) held at Jawaharlal Nehru University (JNU,Convention Center),New Delhi during 15 March 2015. **(Presented)**.
9. Theoretical Prediction of interaction potential function for Alkali Halide, **Brijesh K. Pandey**, Anjani K.Pandey and Abhay P. Srivastava.  
International conference on condensed matter and Applied Science organized by govt. Engineering College Bikaner and Ceramic Electrical Research & Development Centre, Bikaner during Oct.30-31, 2015, Rajsthan.  
AIP Conference Proceedings 1728, 020027 (2016); doi: 10.1063/1.4946077  
**SCImago IF 0.4**
10. Theoretical Prediction of Debye Temperature & Elastic Constants of Geophysical Mineral, Chandra K. Singh, Anjani K.Pandey and **Brijesh K. Pandey**.  
International conference on condensed matter and Applied Science organized by govt. Engineering College Bikaner and Ceramic Electrical Research & Development Centre, Bikaner during Oct.30-31, 2015, Rajsthan.  
AIP Conference Proceedings 1728, 020047 (2016); doi: 10.1063/1.4946097.  
**SCImago IF0.4**
11. Theoretical Prediction of Grüneisen Parameter for SiO<sub>2</sub>.TiO<sub>2</sub> Bulk Metallic Glasses.  
Chandra K. Singh; Anjani K. Pandey; **Brijesh K. Pandey**, 60th DAE-SSPS Symposium, held at Amity University UP, Noida, Uttar Pradesh, during December 21-25, 2015.  
AIP Conf. Proc. for SSPS June 2016, Vol. 1731 pp-070002 -1-3, doi: 10.1063/1.4947834  
**SCImago IF 0.4**
12. Theoretical model for the prediction of lattice energy of diatomic metal halides.  
Brijesh K.Pandey, Anjani K.Pandey , and Abhay P. Srivastava ,



- International conference international conference on advances in light technologies and spectroscopy of materials (ICALTSM -2016) Jan. 16-19, 2016. Department of Physics Lucknow University, Lucknow, Uttar Pradesh. **(Presented)**
13. Theoretical Prediction of Grüneisen Parameter for Carbon Nano tube bundles under Extreme Compression  
H. K. Rai, Chandra Kumar Singh, Anjani K Pandey and Brijesh K Pandey  
Indo-US, International Conference Nanotechnology: Science and Application in Advanced Materials and Beyond (NSAAMB- 2016) December 19-22, 2016, Dept. of Chemistry, BHU Varanasi. **(Presented)**
  14. Elastic Properties of Geophysical Minerals at Different Temperatures  
**Brijesh K. Pandey**, Chandra K. Singh; Anjani K. Pandey; 61st DAE-SSPS Symposium, held at KIIT University, Bhubaneswar, Odisha, during December 26-30, 2016.  
[AIP Conference Proceedings](#), **1832**, 140007 (2017); doi: 10.1063/1.4980789  
**SCImago IF 0.4**
  15. Pressure Dependent Gruneisen Parameter for Semiconductors  
**Brijesh K. Pandey**, Chandra K. Singh; Anjani K. Pandey; 62<sup>nd</sup> DAE-SSPS Symposium, held at DAE, BARC, Anushaktinagar, Mumbai during December 26-30, 2017.  
[AIP Conference Proceedings](#) **1942**, 120004 (2018); doi: 10.1063/1.5029044  
**SCImago IF 0.4**
  16. Temperature Dependence of Thermal Pressure for NaCl  
Chandra K. Singh, Anjani K. Pandey and **Brijesh K. Pandey**.  
2<sup>nd</sup> International conference on condensed matter and Applied Physics, organized at Govt. Engineering College Bikaner during Nov.24-25, 2017, Rajasthan.  
[AIP Conference Proceedings](#) **1953**, 130002 (2018); doi: 10.1063/1.5033146.  
**SCImago IF 0.4**
  17. Theoretical prediction for elastic properties of BiFeO<sub>3</sub>  
2<sup>nd</sup> International conference on challenges and Opportunities for Technological Innovation in India (COTII-2018) during 23<sup>rd</sup> -24<sup>th</sup> Feb. 2018., at Ambalika Institute of Management & Technology, Lucknow. **(Paper presented)**
  18. Mathematical Analysis of Melting Temperature of Metallic Nanoparticles.  
National conference on "Recent Advances in Pure and Applied Mathematics (RAPAM-2018) April 12<sup>th</sup> -13<sup>th</sup> , 2018. Department of Applied Science, Madan Mohan Malaviya University of Technology, Gorakhpur, India. **(Paper Presented)**
  19. Shape and size dependence of Debye Temperature for Metallic Nanoparticles.  
22<sup>nd</sup> International Conference of International Academy of Physical Sciences (CONIAPS XXII) on Emerging Trends in Physical Sciences, during April 13-15,

2018 organized by faculty of science Dr. Ram Manohar Lohia Avadh University, Faizabad. (**Paper Presented**)

- 20.** Shape Dependence of Elastic Moduli of Metallic Nanoparticles  
International Conference on Advances in basic Sciences (ICABS19), during Feb.7-9, 2019. Organized by GDC Memorial College, Bahal, Bhiwani, Haryana, India. (**Paper Presented**)  
AIP Conference Proceedings **2142**, 170006-1 to 170006-5 (2019);  
<https://doi.org/10.1063/1.5122603> Published Online: 29 August 2019  
Brijesh Kumar Pandey, Ratan Lal Jaiswal, and Sachin. **SCImago IF 0.4**
- 21.** Temperature Dependence of Elastic Properties of Potassium Chloride (KCl)  
Ratan Lal Jaiswal<sup>1</sup>, Brijesh Kumar Pandey<sup>2a</sup>, and C. K. Singh<sup>2</sup> International Conference on Advances in basic Sciences (ICABS19), during Feb.7-9, 2019. Organized by GDC Memorial College, Bahal, Bhiwani, Haryana, India  
AIP Conference Proceedings **2142**, 140012-1 to 140012-4 (2019);  
<https://doi.org/10.1063/1.5122525> Published Online: 29 August 2019  
Ratan Lal Jaiswal, Brijesh Kumar Pandey, and Sachin. **SCImago IF 0.4**
- 22.** Outlining the Advancement in Ionic Liquid Based Polymer Gel Electrolytes for Electrochemical Energy Storage.  
Shivani, B. K. Pandey and Abhishek Kr. Gupta  
International Conference on Electroactive Polymers “ICEP-2019” Udaipur, India.
- 23.** Compression Behavior of Carbon Nanotubes and Other Nano Materials Under the Effect of High Pressure  
Shridhar Pathak and **Brijesh K. Pandey.**  
<sup>3rd</sup> International conference on condensed matter and Applied Physics, organized at Govt. Engineering College Bikaner during Oct.14-15, 2019, Rajsthan.  
AIP Conference Proceedings **2220**, 020028 (2020); <https://doi.org/10.1063/5.0001357>  
Published Online: 05 May 2020. **IF 0.4**
- 24.** Variation of Debye temperature with size of nanoparticles  
Price Mishra and **Brijesh K. Pandey.**  
AIP Conference Proceedings **2220**, 020061 (2020);  
<https://doi.org/10.1063/5.0002346> Published Online: 05 May 2020 **IF 0.4**
- 25.** Compression Behavior of Semiconducting Materials  
Aditya Tiwari and **Brijesh K. Pandey.**  
AIP Conference Proceedings **2220**, 020054 (2020);  
<https://doi.org/10.1063/5.0001551> Published Online: 05 May 2020. **IF 0.4**
- 26.** Device simulation of low cost HTM free perovskite solar cell based on TiO<sub>2</sub> electron transport layer  
Shambhavi Rai, B. K. Pandey and D.K. Dwivedi  
AIP Conference Proceedings **2220**, 140022 (2020)  
<https://doi.org/10.1063/5.0001230> Published Online: 05 May 2020 **IF 0.4**

- 27.** Computational Studies of PEO3-NaClO4 Based Solid Polymer Electrolyte for Na-ion Batteries".  
Shivani Gupta, **B.K. Pandey** and Abhishek Kumar Gupta  
3<sup>rd</sup> International conference on condensed matter and Applied Physics, organized at Govt. Engineering College Bikaner during Oct. 14-15, 2019, Rajasthan.  
AIP Conference Proceedings 2220 (2020) **IF 0.4**
- 28.** A brief study on Young's modulus of FCC Structured Nanomaterials.  
Huda Fatma and B. K. Pandey  
ICE2M-2019, Organized by Department of Mechanical Engineering at M.M.M. University of Technology, Gorakhpur  
Accepted in IEEE Journal. SCImago.
- 29.** Dependence of Melting Temperature on the size of Nanosolids  
Dishani Mishra and B. K. Pandey  
ICE2M-2019, Organized by Department of Mechanical Engineering at M.M.M. University of Technology, Gorakhpur  
Accepted in IEEE Journal. SCImago
- 30.** Hydroxyl Radical Reactivity with Cytosine and Thymine: A Computational Study, Huma Farooqui, B. K. Pandey and Amarjeet Yadav, National Conference on Recent Advancement in Physical Sciences (NCRAPS-2020) (December 19-20, 2020) National Institute of Technology, Uttarakhand  
Journal of Physics: Conference Series 1849 (2021) 012029 IOP Publishing  
doi:10.1088/1742-6596/1849/1/012029
- 31.** Design and computational simulation of CZTS based solar cell using SCAPS 1-D software  
Avijit Ray and B.K. Pandey  
International Conference on VLSI and Microwave Wireless Technologies(ICVMWT-2021) during 20-21 March-2021 at M.M.M. University of Technology Gorakhpur. Accepted for Publication in Springer Book Chapter.
- 32.** Numerical simulation of efficient two-dimensional based perovskite solar cell by changing the hole transporting layer  
Mridubhashani Maurya, Brijesh Kumar Pandey and Shail Pandey  
Modern Approaches in Engineering, Science and Management (MAESM – 2021) organized by Department of Electrical and Electronics Engineering, Bansal Institute of Engineering and Technology, Lucknow. During 16-17 April 2021
- 33.** Size dependence of magnetization of metal and metal oxides nanoparticles  
Sneh Lata Yadav, Brijesh Kumar Pandey and Ratan Lal Jaiswal  
Modern Approaches in Engineering, Science and Management (MAESM – 2021) organized by Department of Electrical and Electronics Engineering, Bansal Institute of Engineering and Technology, Lucknow. During 16-17 April 2021

- 34.** Effect of solvent on ground state and binding energy of DNA base pair using Density Functional Theory  
Adil Nawaz, Brijesh Kumar Pandey, Amarjeet Yadav and Shail Pandey  
Modern Approaches in Engineering, Science and Management (MAESM – 2021) organized by Department of Electrical and Electronics Engineering, Bansal Institute of Engineering and Technology, Lucknow. During 16-17 April 2021
- 35.** Study on Cohesive Energy and Evaporation Temperature of Nano-Metals  
Brijesh Kumar Pandey, C.K. Dixit And Ratan Lal Jaiswal  
International Conference on Functional Material and Applied Physics (FMAP-2021) Department of Physics S. V. National Institute of Technology, Ichhchhanath, Surat during 14-15 May 2021.( Paper Presented)

### **Conferences Attended**

1. 14<sup>th</sup> Annual Conference of Purvanchal Academy of Sciences .Nov.19-20, 2005 at Jaunpur
2. 6<sup>th</sup> Conference Acad. Of Phys. Sci. Feb. 6-8,2004 (Gorakhpur).
3. 15<sup>th</sup> Annual Conference of Purvanchal Academy of Sciences Feb.19-20, 2005 at Jaunpur.
4. National Conference on “ Recent Trends in Pure and Applied mathematics”, July 11-12,2009
5. National Conference on Emerging Trends in Mechanical Engineering, Oct. 12-13,2009. (Gorakhpur) .
6. National Conference on ‘Emerging Trend of Active/Smart/Nano Material, Dept. of Applied Sciences, Feroz Gandhi Institute of Engineering and Technology Raebareli, 8, August, 2010.
7. National Conference On “Advances In Computer Communication And Embedded Systems (ACCES - 2012)” , Department of Electronics & Communication Engineering, M.M.M. Engineering College, Gorakhpur, April 12- 13, 2012
8. International Conference on Recent Trends in Applied Physics and Material Science 1- 2, Feb.-2013, at Govt. Engineering College, Bikaner, Rajasthan.
9. National Conference On “Recent Advances In Database Systems and Applications (NCRADSA-2013)” , Department of Computer Science & Engineering, M.M.M. Engineering College, Gorakhpur, May 04- 05, 2013.
10. International Conference on Nanoscience and Nanotechnology (ICNN-2013), held in the Department of Applied Physics, School of Physical Sciences, Babasaheb Bhimrao Ambedkar University, at Lucknow during 18-20 Nov.2013

11. International Conference on Advanced Materials and Applications (ICAMA-2014) held at Centre of Material Sciences, University of Allahabad-India, during March 24-26, 2014.
12. International conference on Science Technology and Management (ICSTM-2015) held at YMCA, Connaught Place, New Delhi during 1<sup>st</sup> Feb. 2015.
13. National Conference on Recent Advances in Chemical and Materials Science (NCRACMS-15) Feb. 23-24, 2015. Organized by Department of Applied Sciences M.M.M. University of Technology, Gorakhpur, India.
14. International Conference On Recent Trends In Engineering Science And Management (ICRTE SM-2015) held at Jawaharlal Nehru University (JNU, Convention Center), New Delhi during 15 March 2015.
15. National seminar on "Development of mathematical Principle with their advancement in Computer Sciences" at Isabella Thoburn College, Lucknow during 17<sup>th</sup> -18<sup>th</sup> November 2015.
16. International conference international conference on advances in light technologies and spectroscopy of materials (ICALTSM -2016) Jan. 16-19, 2016. Department of Physics Lucknow University, Lucknow, Uttar Pradesh.
17. Indo-US, International Conference Nanotechnology: Science and Application in Advanced Materials and Beyond (NSAAMB- 2016) December 19-22, 2016, Dept. of Chemistry, BHU Varanasi.
18. National conference on "Recent Advances and Innovations in Chemical and Materials Sciences" J. N. P. G. College, Lucknow during 23<sup>rd</sup> - 24<sup>th</sup> Feb. 2017.
19. Malviya Research Conclave 2017 during 8-10 July 2017 at M.M.M. University of Technology Gorakhpur.
20. 62<sup>nd</sup> DAE-SSPS Symposium, held at DAE, BARC, Anushaktinagar, Mumbai during December 26-30, 2017.
21. 2<sup>nd</sup> International conference on challenges and Opportunities for Technological Innovation in India (COTII-2018) during 23<sup>rd</sup> -24<sup>th</sup> Feb. 2018., at Ambalika Institute of Management & Technology, Lucknow
22. 22<sup>nd</sup> International Conference of International Academy of Physical Sciences (CONIAPS XXII) on Emerging Trends in Physical Sciences, during April 13-15, 2018 organized by faculty of science Dr. Ram Manohar Lohia Avadh University, Faizabad.

23. Malviya Research Conclave 2018 during 6-8 July 2018 at M.M.M. University of Technology Gorakhpur.
24. UPCON-18, IEEE International conference during 2<sup>nd</sup> -4<sup>th</sup> Nov.. 2018., at M.M.M. University of Technology Gorakhpur.
25. International Conference on Advances in basic Sciences (ICABS19), during Feb.7-9, 2019. Organized by GDC Memorial College, Bahal, Bhiwani, Haryana, India.
26. National Conference on Recent Advances in Chemical Sciences during 29-30 March 2019 at MMMUT, Gorakhpur.
27. International Conference on Energy, Environment & Material Science (ICE2M-2019) Jointly organized by M.M. M. University of Technology, Gorakhpur and National Agency for New Technologies, Energy and Sustainable Economic Development (ENEA), Italy, during 1-3 Dec. 2019.
28. International Conference on Electrical and Electronics Engineering (ICE3-2020) during 14-15 Feb, jointly organized by North Dakota State University USA and M.M.M. University of Technology, Gorakhpur.
29. Malviya Research Conclave- 2020 during 22-24 Feb. 2020 at M.M.M. University of Technology Gorakhpur
30. International Conference on Futuristic Material 19-20 Dec-2020 at D.D. Gorakhpur University Gorakhpur.“
31. International Conference on VLSI and Microwave Wireless Technologies(ICVMWT-2021) during 20-21 March-2021 at M.M.M. University of Technology Gorakhpur.“
32. International conference on Modern Approaches in Engineering, Science and Management (MAESM – 2021) organized by Department of Electrical and Electronics Engineering, Bansal Institute of Engineering and Technology, Lucknow. During 16-17 April 2021
33. International Conference on Functional Material and Applied Physics (FMAP- 2021) Department of Physics S. V. National Institute of Technology, Ichhchhanath, Surat during 14-15 May 2021

## **Lab Setting**

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1. Setting of Physics Lab according to Uttar Pradesh Technical University in 2002.
2. Lab Manual for Physics Lab in 2002.

3. Setting of Physics Lab-2 according to the syllabus of M.M.M. University of Technology, Gorakhpur in 2014.
4. Setting of Lab for M.Sc. Physics MPC-202, Condensed matter Physics according to the syllabus of M.M.M. University of Technology, Gorakhpur in 2018.
5. Setting of Lab for M.Sc. Physics MPC-203, Spectroscopy and Laser, according to the syllabus of M.M.M. University of Technology, Gorakhpur in 2018.

### **Administrative/ Managerial Responsibilities at Parent Institute**

1. O/C Physics Lab from Feb. 1999 -Sep.2010.
2. Programme Officer NSS From 2006 to 2009.
3. O/C of one Game of students from 2000 to till date.
4. Deputy President Sports and Recreation from 02.07.07 to 15.10.07
5. Warden of College Boys Hostel from 01.04.09 to 10 .09 2009.
6. Member of Library Automation committee.
7. Warden of College Girls Hostel from 01.07.10 - 18.12.2012
8. O/C Cultural Activities from Oct. 2010- July 2015.
9. O/C Football from Oct. 2010- July 2012.
10. Member of Counseling and career Guidance Cell for College Students 01.07.13 –Till date.
11. Member of ACP committee for College Non Teaching Staff from Oct-2011- June-2014.
12. Teacher Member of College Editorial Board from July-2011 –March 2016.
13. O/C Departmental Time table from Jan-2013 till date.
14. Deputy President of Malaviya Engineering Teachers Welfare Association (METWA) Oct. 2013 To 25.02.2015.
15. Secretary of Malaviya Engineering Teachers Welfare Association (METWA) 26.02.2015. Till Date
16. Warden Boys Hostel 16.07.2014 to May 2015.
17. Deputy Dean Academic 16.07.2014 to 21.07. 2014.
18. ANO NCC from Sept. 2014 to July 2016.
19. Tabulator of Exam Marks from 19.01.2015
20. Secretary of Malaviya Engineering Teachers Welfare Association (METWA) 26<sup>th</sup> Feb. 2015 till date
21. O/C Physics Lab-2 from July 2015 -June.2016.
22. O/C Physics Lab-1 from July 2016 –Till date.
23. Warden Boys Hostel 01.06.2017 to 31.01.2020.
24. Vice Chairman CSA and faculty incharge Cultural sub council 01.06.2017-.07.01.2020.
25. Member Center of Development for Technical Education from 09.03.2018 to till date.
26. Coordinator for publishing University Information Brochure-2018-19.
27. Flying Squad Member for the Exams from 2018-19- Till date
28. Deputy Proctor of university from 05.09.2018 Till date
29. Head Department of Applied Science from 17.01.19 to 21.06.2019
30. Chairman DPC Applied Science from 17.01.19 to 21.06.2019

31. Coordinator B.Tech 1st Year students of the university from 13.05.2019-30.06.2020.
32. Founder Head of Department Physics and Material Science from 22.06.2019 Till date.
33. Member of Academic Council of this University from 17.01.2019 till date
34. Coordinator IPNS-2019
35. Chairman DPC Physics and Material Science from 27.06.2019 till date
36. Chairman BOS of Physics and Material Science from 27.06.2019 till date.
37. Member Central Purchase Committee of the University from 07.09.2019
38. Chairman Hindi Cell of this University from 13.09.2019 till date
39. Chairman Council of Student Activities from 08.01.2020 till date
40. Member of University IQAC from 16.01.2020 till date
41. Deputy coordinator Counselling Committee for admission in university from 17.01,2020 to 10<sup>th</sup> Dec. 2020.

### **Member of Professional Bodies**

1. The Indian Science Congress Association, Membership No. L15669
2. Asian Journal of Chemistry.
3. Indian Academy of Science and Humanities.
4. .Executive Editor of International Journal of Current Sciences and Technology.
5. Managing Editor of Pacific Journal of Humanities and Social Sciences, ISSN No. 2349-0888, June-2014
6. Reviewer of IEEE Electron Device Letters
7. Life Membership of Indian Association of Physics Teachers, Membership No. 13256 L8302.
8. Reviewer of Materials Today Proceedings
9. Member of editorial board of Journal of Advanced Thermal Science Research
10. Reviewer of International Journal of Nanoscience and Nanotechnology.

### **Invited lectures/ Guest speaker**

1. National Conference on 'Emerging Trend of Active/Smart/Nano Material, Dept. of Applied Sciences, Feroz Gandhi Institute of Engineering and Technology Raebareli, 8, August, 2010.
2. National Conference on 'Values and Ethics in Life and Society (NCVELS-14), Dept. of Applied Sciences, Madan Mohan Malaviya University of Technology, Gorakhpur 21, Feb., 2014.
3. **Chairmanship of Technical session-2** National Conference on Materials Science and Technology (NCMST-14) March 10-11, 2014., Dept. of Applied Sciences M.M.M. University of Technology Gorakhpur.



4. ***Chairmanship of Technical session-2***, National Conference on Values and Ethics in Life and Society (NCVELS-14) Feb. 21-22, 2014. Dept. of Applied Sciences M.M.M. University of Technology Gorakhpur
5. ***Variation of Dielectric constant of Ni II Hydroxide Carbonate with Temperature***, National Seminar on 23-24 March 2012 on Active and Smart Materials, Dept. of Applied Sciences M.M.M. Engg. College Gorakhpur.
6. ***Thermoelastic Properties of Nanomaterials***, National Conference on Materials Science and Technology (NCMST-14) March 10-11, 2014, Dept. of Applied Sciences M.M.M. University of Technology Gorakhpur.
7. ***Thermoelastic Properties of Nanomaterials at High Temperature and Pressure***, National Conference on Recent Advances in Chemical and Materials Science (NCRACMS-15) Feb. 23-24, 2015. Organized by Department of Applied Sciences M.M.M. University of Technology, Gorakhpur, India.
8. ***Computer Application in Mathematics and Science***, National seminar on “Development of Mathematical Principle with their advancement in Computer Sciences” organized by Department. of Computer Application, at Isabella Thoburn College, Lucknow during 17<sup>th</sup> -18<sup>th</sup> November 2015.
9. ***Displacement current, Another step towards Maxwell’s Equations***, Engineering faculty, V.B.S. Purvanchal University Jaunpur, U.P., India. 17<sup>th</sup> March 2016.
10. National Conference on ‘Recent Advances and Innovations in Chemical and Materials Science, “J.N. P.G. College, Lucknow. 23, Feb, 2017.  
**Topic : Materials In view of Equations of States.**
11. International Short term course on Synthesis, Characterization and Applications on Nano Materials (ISTC-SCAN2018), Department of Chemistry, Shri J. N. P. G. College, Lucknow during 06-12 March 2018.  
**Topic: Elements of Crystallography**
12. International Short term course on Synthesis, Characterization and Applications on Nano Materials (ISTC-SCAN2018), Department of Chemistry, Shri J. N. P. G. College, Lucknow during 06-12 March 2018.  
**Topic: Thermal Conductivity of Nanofluids.**
13. National Seminar on Biotechnological Interventions in Agriculture, Health and Industry (BIAHI-2019), Department of Biotechnology, D.D.U. Gorakhpur University, Gorakhpur, India, during 23-24 March 2019.  
**Topic: Nanofluids Properties and Applications.**
14. National Conference on “ Recent Advances in Chemical Science, M.M.M. University of Technology, Gorakhpur ( March 29-30, 2019).

**Topic: Thermal Conductivity of Metallic Nano Particle**

15. Induction Program for New Students ( IPNS-2019) held during 30<sup>th</sup> July to 19<sup>th</sup> August 2019 at M.M.M. University of Technology, Gorakhpur.

**Topic: Role of Art and Literary activities in personality development.**

16. Chaired the technical session of the International Conference on Electrical and Electronics Engineering (ICE3-2020) during 14-15 Feb, jointly organized by North Dakota State University USA and M.M.M. University of Technology, Gorakhpur.

17. One week online pedagogical training program on “ Curriculum Design, Delivery and Assessment for Outcome Based Education from 11.05.2020 to 16.05.2020, organized by IQAC of M.M.M. University of Technology, Gorakhpur.

**Topic: Bloom’s Taxonomy based Teaching Learning (14.05.2020)**

18. Moderator and speaker in the webinar on “Ek Bharat Shretha Bharat” 29.06.2020, organized by Humanities and Management Science Department of M.M.M. University of Technology, Gorakhpur.

**Topic: Personality development through sports and cultural activities**

19. One week Faculty Development Program on “Recent Advances in Material Science and Research Ethics” from 21-09-2020 to 25-09-2020 Organized by Physics and Material Science Department Madan Mohan Malaviya University of Technology Gorakhpur-273010.

**Topic: Nuclear forces: Strength and Range**

20. One Week Faculty Development Program on “Institutional Enrichment vis-à-vis skill development” from 24-28 Nov.2020, organized by Department of Applied Sciences & Humanities Rajkiya Engineering College Agra Road, Mainpuri-205119

**Topic: "Teaching Learning based on Bloom's Taxonomy". (28.11.2020)**

21. Chaired the IVth Technical session of the International Conference on Futuristic Material 19-20 Dec-2020 at D.D. Gorakhpur University Gorakhpur.“

22. Chaired the 12th Technical session of the International Conference on VLSI and Microwave Wireless Technologies(ICVMWT-2021) during 20-21 March-2021 at M.M.M. University of Technology Gorakhpur.“

23. Chaired Technical Session AS-2 during the International conference on Modern Approaches in Engineering, Science and Management (MAESM – 2021) organized by Department of Electrical and Electronics Engineering, Bansal Institute of Engineering and Technology, Lucknow. During 16-17 April 2021

24. Invited Lecture in International conference on Modern Approaches in Engineering, Science and Management (MAESM – 2021) organized by Department of Electrical and Electronics Engineering, Bansal Institute of Engineering and Technology, Lucknow. During 16-17 April 2021

**Topic: Publication of our Research Article**

### **Paper Presented in National Conferences:**

1. Theoretical Prediction of Gruneisen Parameter for nanomaterials at high Compression.  
H. K. Rai, Abhay P. Srivastava, Anjani K. Pandey, Chandra K. Singh and B. K. Pandey.  
National Conference on Recent Advances in Chemical and Materials Science (NCRACMS-15) Feb. 23-24, 2015. Organized by Department of Applied Sciences M.M.M. University of Technology, Gorakhpur, India (**Presented**)
2. Theoretical Prediction of Equation of State for Nanomaterials.  
H. K. Rai, Abhay P. Srivastava, Anjani K. Pandey, Chandra K. Singh and B. K. Pandey.  
National Conference on Recent Advances in Chemical and Materials Science (NCRACMS-15) Feb. 23-24, 2015. Organized by Department of Applied Sciences M.M.M. University of Technology, Gorakhpur, India (**Presented**)
3. Theoretical Prediction of Debye temperature using interaction potential  
B. K. Pandey, Anjani K. Pandey and Abhay P. Srivastava  
National Conference on Functional Materials-(March 10-12, 2016),  
Department of Physics, Deen Dayal Upadhyaya Gorakhpur University,  
Gorakhpur- 273009 (**Presented**)
4. Thermal Conductivity of Metallic nanofluids  
Brijesh Kumar Pandey  
TEQIP-III Sponsored National conference on Recent Advances in Pure and Applied Mathematics (RAPAM-2018) during April 12<sup>th</sup> & 13<sup>th</sup>, 2018.  
(**Presented**)
5. Recent Progress in Polymer Gel Electrolytes for Electrochemical Energy Storage  
Shivani, B. K. Pandey and Abhishek Gupta, National Conference on “Smart Materials, Devices and Sustainable Technologies” SMDST-2019, M.M.M. University of Technology, Gorakhpur ( March 15-16, 2019).
6. “Structural Change of Materials at Nano Level”, National Conference on Recent Advances in Chemical Sciences during 29-30 March 2019 at MMMUT, Gorakhpur.

### **Training Programmes / Workshop Organized**

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1. Organized One Day Workshop on 27<sup>th</sup> October 2007,

- Topic: Science and Technology in Ancient Indian Literature and Tradition “*Bhartiya Dharohar*” and *Department of Applied Sciences*.  
*Convener: Dr. B.K.Pandey.*
2. Organized, two day National Seminar, 23-24 March-2012  
Topic: Active and Smart Materials, Sponsored by AICTE New Delhi.  
*Organizing Secretary: Dr. B. K. Pandey*
  3. Organized, two day National Conference, 21-22 Feb-2014  
Topic: Values and Ethics in Life and Society (NCVELS-14), Sponsored by TEQIP-II  
*Organizing Secretary: Dr. B. K. Pandey*
  4. Organized, two day National Conference, 10-11 March-2014  
Topic: Materials Science and Technology (NCMST-14), Sponsored by TEQIP-II  
*Organizing Secretary: Dr. B. K. Pandey*
  5. Organized One Day Workshop on 1<sup>st</sup> Dec. 2014,  
Topic: Curriculum Development of the subjects of *Department of Applied Sciences*.  
*Convener: Dr. B.K.Pandey*
  6. Organized, two day National Conference, 23-24 Feb.-2015  
Topic: Recent Advances in Chemical and Materials Science (NCRACMS-15), Sponsored by TEQIP-II  
*Convener: Dr. B.K.Pandey*
  7. Organized, One Week Short Term Course, during 23-29 March, 2017  
Topic: “Recent Trends in Materials Science” (STCRTMS-17) Sponsored by TEQIP-II  
*Coordinator: Dr. B.K.Pandey*
  8. Organized, One Week Short Term Course, during 24-30 October, 2018  
Topic: “Research Methodology and Statistics” (STCRMS-18) Sponsored by TEQIP-III  
*Convener: Dr. B.K.Pandey*
  9. Organized, two day National Conference, 15-16 March-2019  
Topic: Smart Materials, Devices and Sustainable Technologies (SMDST-19), Sponsored by TEQIP-III  
*Chairman: Dr. B. K. Pandey*
  10. Organized, two day National Conference, 29-30 March-2019  
Topic: Recent Advances in Chemical Sciences (RACS-19), Sponsored by TEQIP-III  
*Chairman: Dr. B. K. Pandey*
  11. Organized, two day National Conference, 5-6 April-2019  
Topic: Recent Advances in Mathematics and Scientific Computing (RAMSC-19), Sponsored by TEQIP-III  
*Chairman: Dr. B. K. Pandey*

12. Organized, 3 weeks induction program for B.Tech. Ist Year students during 30 July-2019 to 19 August 2019 M.M.M. University of Technology, Gorakhpur, Sponsored by TEQIP-III  
*Convener: Dr. B. K. Pandey*
13. Organized, One day Webinar, 18 May-2020  
Topic: Basics of Gaussian and its Applications During COVID-19 Lockdown.  
*Chairman: Dr. B. K. Pandey*
13. Organized, One week faculty development program, during 21-25 Sept. 2020.  
Topic: Recent Advances in Material Science and Research Ethics”  
*Convenor: Dr. B. K. Pandey*
14. Organized, One day Webinar, 28 Feb.-2021  
**Resource Person:** Prof. Mohan L Verma, Shri Shankaracharya Technical Campus Bhilai Chhattisgarh India-490020  
Topic: *Computer Experiment in Nanoscience.*  
*Chairman: Dr. B. K. Pandey*

### **Awards & Honors/Scholarship**

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1. “National Scholarship from 1990 to 1994”

### **Specialized Short Term Courses Attended**

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1. “**Excellence through Team**” workshop organized by M. M. M. Engg. College, Gorakhpur-273010, India, Feb. 17-18, 2008.
2. “**Orientation Programme**” organized by DDU Gorakhpur University, Gorakhpur-U.P., India, 27.11.03 to . 24.12.03
3. “**Winter School**” sponsored by AICTE, Gov. of India and jointly organized by MNREC, Allahabad., 27.12.99 to . 01.01.00
4. “**Orientation Course**” Organised by TOC Lucknow 07.11.06 to . 16.11.06
5. “**Workshop Organized**” by Department of Physics,DDU Gorakhpur University24.11.06 to . 25.11.06.
6. “**Refresher Course**” Organised by TOC Lucknow 24.07.07 to . 28.07.07.
7. “**Workshop**”organized by Department of Applied Sciences ,MMMEC Gorakhpur University22.10.07.
8. “**Refresher Course**” organized by UGC-ASC H. P. University, Shimla-, India, 11.03.08 to . 31.03.08.
9. “**Refresher Course**” organized by NTTTIR Chandigarh at MMMEC GORakhpur,25.08.08 to 29.08.08.
10. “**Refresher Course**” organized by UGC-ASC Banaras Hindu University, Varanasi , India, 03.07.10 to 23.07.10.
11. **Workshop on Nanotechnology and its Applications** by National Academy of Sciences at M.M.M. Engineering College, Gorakhpur from 18.01.2013 to 20.01.2013. (3 days)
12. **Short Term Course**” organized by Department of Physics, MNNIT, Allahabad, 10.06.13 to 14.06.13.
13. “**Faculty Development Programme on Effective Classroom Teaching**” organized by NTTTIR Chandigarh at MMMEC Gorakhpur, 29.07.13 to 02.08.13.

14. **“Faculty Development Programme on *Cyber Crime and Forensic Tools*”** organized by NTTTTIR Chandigarh at MMMEC Gorakhpur, 27.01.14 to 31.01.14.
15. **“A TEQIP Short Term Course on STRUCTURE AND CHARACTERIZATION OF MATERIALS (SCM-2014),** 22-26 December 2014, IIT Kanpur.
16. **“A TEQIP Short Term Course of one week** on “Basic Pedagogy Training on Objective and Outcome Based Education System-Transforming Engineering Education to Match Global Needs” 12-16 June 2015, M.M.M. University of Technology Gorakhpur.
17. **Three day** “Energy Efficiency workshop on oil conservation” organized in association with Petroleum Conservation Research Association, Ministry of Petroleum and Natural Gas, Government of India, during 22-24 August 2015 at M.M.M. U.T. Gorakhpur.
18. **“A TEQIP Sponsored Short Term Course of one week of on** “Mathematical Methods in Science and Technology” during 15-19 December, 2015 at M.M.M. University of Technology, Gorakhpur.
19. **One day workshop** on “Green Energy for Sustainable Development: Role of Educational Institutions” on January 21, 2016 at M.M.M. University of Technology, Gorakhpur.
20. **“A TEQIP Sponsored Short Term Course of one week of on** “Applications of Physical Sciences in Engineering and Technology” during 2-8 July, 2016 at M.M.M. University of Technology, Gorakhpur.
21. **Hands on Training cum Workshop** on soft computing skill for Scientists and Engineers (SCSSE-17), 17<sup>th</sup> -19<sup>th</sup> March-2017, Organized by the Department of Applied Science, M.M.M. University of Technology Gorakhpur.
22. **“A TEQIP Sponsored Short Term Course of one week on** “Recent Trends in Materials Science” during 23-29 March, 2017 at M.M.M. University of Technology, Gorakhpur.
23. **Workshop on the Role of Local Chapters of NPTEL** on 01 st April 2017, Conducted by IIT Kanpur at M.M.M. University of Technology Gorakhpur.
24. **“A TEQIP Sponsored Short Term Course of one week on** “Emerging Trends in Smart Grid and Optimization Techniques-2018” during “11-16 September, 2018 at M.M.M. University of Technology, Gorakhpur.
25. **“A TEQIP Sponsored Short Term Course of one week on** “Research Methodology & Statistics” during 24-30 October 2018 at M.M.M. University of Technology, Gorakhpur.
26. **“A TEQIP Sponsored Short Term Course of one week on** “Advancement in Mechanical Engineering” during 17-23 December 2018 at M.M.M. University of Technology, Gorakhpur.
27. **“A IEEE Sponsored International workshop on** “Panel of Conference Organizers” on 25<sup>th</sup> September 2019 at M.M.M. University of Technology, Gorakhpur.
28. **“A Short Term Course of one week on** “ICT in Advance Teaching and Learning for Academicians: A Gateway to Excellence” Sponsored by Ministry of Electronics and Information Technology, Government of India, during 14-18 Oct. 2019 at M.M.M. University of Technology, Gorakhpur
29. Professional Development training programme for faculty and administrators of project institutions of TEQIP-III at IIM Vishakhapatnam, during 9<sup>th</sup> Dec. 2019 to 13<sup>th</sup> Dec. 2019.

30. One week online pedagogical training program on “ Curriculum Design, Delivery and Assessment for Outcome Based Education from 11.05.2020 to 16.05.2020, organized by IQAC of M.M.M. University of Technology, Gorakhpur.
31. TEQIP Sponsored One week online STC attended “Nascent Research Methodology: Challenges and Various Analytical Tools & Techniques” held from 24<sup>th</sup> -29<sup>th</sup> June 2020, Organized by the Department of Humanities and Management Science Department of M.M.M. University of Technology, Gorakhpur.
32. TEQIP Sponsored One week online FDP attended “ Future scope of chemical Science and research Methodology” held during 21<sup>th</sup> Sept. to 25<sup>th</sup> Sept. 2020, Organized by the Department Chemistry and Environmental Science, M.M.M. University of Technology, Gorakhpur

### Development of e-learning delivery process material:

1. May 31, 2016 - *Scilab* Textbook Companion for. Engineering Physics (volume - 1) by *B. K. Pandey* and S. Chaturvedi. 1. Created by. Vareesh Pratap. B.Tech.  
**Source:** [www.scilab.in/textbook\\_companion/generate\\_book/2333](http://www.scilab.in/textbook_companion/generate_book/2333)
2. Jun 3, 2016 - *Scilab* Textbook Companion for. Engineering Physics (volume - 2) by *B. K. Pandey* and S. Chaturvedi. 1. Created by. Vareesh Pratap. B.Tech  
**Source:** [www.scilab.in/textbook\\_companion/generate\\_book/3014](http://www.scilab.in/textbook_companion/generate_book/3014)

### Research Project Submitted:

S.No.	Name of PI	Title of Project	Agency	Total Amount
1.	Dr. B. K. Pandey	“Polymer Functionalized Materials based Nanofluids: Synthesis, Stability and Thermal conducting behavior” <b>For three years</b>	UPCST	<b>1423000/-</b>
2.	Prof. B. K. Pandey	Water/Oil based Polymer Functionalized Graphene Oxide Nanofluid: Synthesis, Stability and Thermal conducting behaviour ( File No. CRG/2021/003303, PAC Physics-1, Condensed Matter Physics and Material Science )	SERB New Delhi	<b>Rs 50,70,489</b>

### Research Scholars Enrolled for Ph.D.

S. No.	Name of Research Scholar	Topic	University	Date of Registration
1.	Chandra Kumar	ELASTIC PROPERTIES OF	Uttar Pradesh	Awarded in

	Singh (NET-CSIR)	CRYSTALLINE SOLIDS UNDER TEMPERATURE AND PRESSURE	Technical University Lucknow.	November 2017
2.	Sachin (NET- CSIR)	Physical Properties of Nano Materials	M.M.M. University of Technology, Gorakhpur	July 2017
3.	Ratan Lal Jaiswal (NET-CSIR)	Thermodynamic Properties of Nano Materials	M.M.M. University of Technology, Gorakhpur	July 2018
4.	Shambhavi Rai	Perovskite Solar Cell	M.M.M. University of Technology, Gorakhpur	July 2018
5.	Shivani Gupta	Studies on Ion Conduction Gel Polymer Electrode for energy Storage Devices	M.M.M. University of Technology, Gorakhpur	July 2018
6.	Priyanka Dube		M.M.M. University of Technology, Gorakhpur	Dec, 2020

### Masters Thesis Supervision: completed or in progress:

S. No.	Name of students	Title of Thesis	Course	Co-Super.	Institution/Univ.	Completed/In Progress
1.	Aditya Tiwari 2018073003	Equation of States for Bulk Materials	M. Sc.	<b>None</b>	M.M.M. University of Technology, Gorakhpur	Completed
2.	Dishani Mishra 2018073008	Melting Temperature and Thermal Expansion of Nanomaterials	M. Sc.	<b>None</b>	M.M.M. University of Technology, Gorakhpur	Completed
3.	Huda Fatma 2018073010	Elastic Properties of Nanomaterials	M. Sc.	<b>None</b>	M.M.M. University of Technology, Gorakhpur	Completed
4.	Prince Mishra 2018073018	Debye Temperature and Specific Heat of Nanomaterials	M. Sc.	<b>None</b>	M.M.M. University of Technology, Gorakhpur	Completed
5.	Shridhar Pathak 2018073022	Equation of States for Nanomaterials	M. Sc.	<b>None</b>	M.M.M. University of Technology, Gorakhpur	Completed
6.	Gunja Singh 2018073009	Synthesis of Zinc Oxide nanoparticles (nZnO) by Sol-Gel Method and Characterization of Its Structural and Electrical Properties	M. Sc.	<b>None</b>	M.M.M. University of Technology, Gorakhpur	Completed
7.	Avijit Ray	Enhanced efficiency in bifacial HIT solar cell by gradient doping with AFORS-HET	M.Sc.	<b>None</b>	M.M.M. University of Technology, Gorakhpur	In progress



		simulation				
8.	Huma Farooqi	Study of binding energy of DNA base and it's pair in different solvents using density functional theory	M.Sc.	None	M.M.M. University of Technology, Gorakhpur	In Progress
9.	Mod. Adil Nawaz	Binding and Dissociation energies of OH radical at different sites of Cytosine and Thymine using DFT	M.Sc.	None	M.M.M. University of Technology, Gorakhpur	In Progress
10.	Mridubhashini	Modeling of two-dimensional transition metal dichalcogenide based higher efficiency perovskite solar cell by numerical simulation	M.Sc.	None	M.M.M. University of Technology, Gorakhpur	In Progress
11.	Sneh Lata Yadav	Magnetic property of nano particles (Coercivity and saturation magnetization)	M.Sc.	None	M.M.M. University of Technology, Gorakhpur	In Progress

### **Any Other Relevant information**

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*Coordinated deferent team of students for sports & cultural activities at:*

(a) KNIT Sultanpur from 14<sup>th</sup> March 2005 to 16<sup>th</sup> March 2005.

(b) BIET Jhansi from 17<sup>th</sup> Feb. 2006 to 19<sup>th</sup> Feb. 2006

(c) IT BHU Varansi from 3<sup>rd</sup> march. 2006 to 6<sup>th</sup> March 2006.

(d) Stood at 2<sup>nd</sup> position in Volley Ball Throw during 55<sup>th</sup> Annual Sports Meet (ASM-2018).

(e) Winner in Tug of War (Faculty Vs Faculty) during 55<sup>th</sup> Annual Sports Meet (ASM-2018).

(f) Coordinated the Scientific tour and organize Scientific quiz for 70 students of 12<sup>th</sup> standard of Siddharth Public Inter College,

Siddharthnagar, at M. M.M. University of Technology, Gorakhpur with the Collaboration of district Science club Siddharthanagar.

I, solemnly declare that the above details are true to the best of my knowledge and belief if any information given by me found incorrect, disciplinary action may be taken against me.

**Date:** 15.01.2020

Signature

**Place:** Gorakhpur

*(Prof. B.K. Pandey)*