

## CURRICULUM VITAE

**Prof. (Dr.) Rajiv Kumar**

**Principal**

**Goswami Ganesh Dutt S.D. College, Haryana,**

**Distt. Hoshiarpur -144208 Punjab**

### **PERSONAL DETAILS:**

**Date of Birth:** March 17, 1975

**Father's Name:** Sh. Madan Lal

**Mother's Name:** Smt. Urmila Rani

**Nationality:** Indian

**Marital Status:** Married

**Permanent Address:** 117, Parashar Niwas, Street No. 7, Shiv-Shakti Nagar, Behind Sadhu Ashram, Una Road, Hoshiarpur – 146001 Punjab, India

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**Website:** [www.ggdsdcollegeharyana.org](http://www.ggdsdcollegeharyana.org)



### **ACADEMIC QUALIFICATIONS**

- **Ph. D., Physics (Materials Science)**, 2007-2011, Department of Physics, Guru Nanak Dev University, Amritsar, Punjab, India  
Thesis title: *“Study of Ion Transport Properties of Some Triflate Based Proton conducting Polymer Gel Electrolytes”*  
Supervisor: Professor S. S. Sekhon
- **M. Sc., Physics (Specialization in Solid State Physics)**, 1996-1998, Himachal Pradesh University, Shimla, Himachal Pradesh, India with First Division (61.80%)
- **B. Sc., (Non-Medical)**, 1993 – 1996, Himachal Pradesh University, Shimla, Himachal Pradesh, India with First Division (73.80%)
- **Council of Scientific and Industrial Research - National Eligibility Test (CSIR-NET) Qualified in 2000**

### **PROFESSIONAL EXPERIENCE**

#### **1998-2002**

Lecturer, D.A.V. College, Daulatpur Chowk, Una, Himachal Pradesh

- Taught B.Sc. I, II, III classes

#### **2002 – 2003**

Junior Research Fellow (JRF), Department of Applied Physics, Guru Nanak Dev University, Amritsar, Punjab, India

Supervisor: Professor S. S. Sekhon

Topic: Development of new proton conducting polymer gel electrolytes for future high-energy storage batteries.

#### **2003-2004**

Lecturer, Department of Physics, Guru Nanak Dev University, Amritsar, Punjab, India

- Taught M. Sc. II year class
- Taught B. Sc. Physics (Hons.), B. Sc. Chemistry (Hons.), B. Sc. Microbiology (Hons.), B. Sc. Human Genetics (Hons.)

#### **2004 – 2018**

Assistant Professor

Goswami Ganesh Dutt Sanatan Dharam (G.G.D.S.D.) College, Haryana, Hoshiarpur, Punjab

- Teaching B.Sc. I, II, III classes

**2018 – 2020**

**Associate Professor**

Goswami Ganesh Dutt Sanatan Dharam (G.G.D.S.D.) College, Haryana, Hoshiarpur, Punjab  
Teaching B.Sc. I, II, III classes

**ADMINISTRATIVE EXPERIENCE**

**2008-2020**

**Bursar**

Goswami Ganesh Dutt Sanatan Dharam (G.G.D.S.D.) College, Haryana, Hoshiarpur, Punjab

**2020 - till date**

**Principal (Professor)**

Goswami Ganesh Dutt Sanatan Dharam (G.G.D.S.D.) College, Haryana, Hoshiarpur, Punjab

**AWARDS/RECOGNITION**

- “Publons Peer Review Award 2018” for placing in the Top 1% of reviewers in Assorted\* (9<sup>th</sup> position) on September 12, 2018 for review reports performed during the 2017-2018 award year.
- “Publons Peer Review Award 2017” for placing 8<sup>th</sup> position in Top Reviewers for India in September 12, 2017 for review reports performed during the 2016-2017 award year
- “*Bharat Rattan Mahamana Madan Mohan Malviya Memorial Award*” on June 10<sup>th</sup>, 2017 for all-round achievements in Academics, Research and other co-curricular/Extension Activities by Sanatan Dharam Education Board (Regd.) under Shree Sanatan Dharm Pratinidhi Sabha (Punjab), New Delhi, India
- Biography included in The Marquis Who's Who in the World® 2016 and 2018, published by Marquis Publications, Berkeley Heights, NJ 07922 (USA)
- Award of Honor by “Seva Sarthi Cheritable Trust”, New Delhi on 30<sup>th</sup> November 2019
- Award of Honor by Guru Nanak College of Engineering and Technology, Dalewal (Hoshiarpur) on Teacher's Day (5<sup>th</sup> September 2019).

**MEMBER, BOARD OF STUDIES**

- Elected Member, Physics (UG), Panjab University, Chandigarh for the term 2-years i.e. 01-04-2019 to 31-03-2021
- Elected Member, Medical Physics (UG), Panjab University, Chandigarh for the term 2-years i.e. 01-04-2019 to 31-03-2021
- Elected Member, Physics (UG), Panjab University, Chandigarh for the term 2-years i.e. 01-04-2017 to 31-03-2019
- Physics (UG and PG), Sant Baba Bhag Singh University, Jalandhar for two sessions 2018-2019 and 2019-2020

**MEMBER, MANAGING COMMITTEES**

- Working Committee of Shri Sanatan Dharma Pratinidhi Sabha (Punjab) Regd., New Delhi for 5-years i.e. 27-02-2022 to 26-02-2027
- Executive Committee of Shri Sanatan Dharma Pratinidhi Sabha (Punjab) Regd., New Delhi for 5-years i.e. 27-02-2022 to 26-02-2027
- Sanatan Dharma Education Board (Regd.), Chandigarh for 5-years i.e. 27-02-2022 to 26-02-2027
- Sanatan Dharma Education Board (Regd.), Chandigarh from 31-07-2020 to 26-02-2022
- G.G.D.S.D. College, Haryana, Hoshiarpur (Staff Representative) 20-11-2018 to 31-07-2020
- G.G.D.S.D. College, Haryana, Hoshiarpur (As Principal) w.e.f. 31-07-2020 to 19-11-2021
- G.G.D.S.D. College, Haryana, Hoshiarpur (Member Secretary) w.e.f. 20-11-2021 to 19-11-2024
- L.S.D. High School, Bassi Daulat Khan, Hoshiarpur for 3-years i.e. 20-11-2018 to 19-11-2021 and 20-11-2021 to 19-11-2024
- S.D. Co-Educational Sen. Sec. School, Sham Chaurasi (Hoshiarpur) for 3-years i.e. 20-11-2018 to 19-11-2021

- G.G.D.S.D. Sen. Sec. School, Haryana (Hoshiarpur) for 3-years i.e. 20-11-2018 to 19-11-2021
- L.S.D. High School, Bassi Daulat Khan, Hoshiarpur for 3-years i.e. 20-11-2018 to 19-11-2021
- Dewan Chaman Lal Katyal S.D. Playway School, Haryana (Hoshiarpur) for 3-years i.e. 20-11-2018 to 19-11-2021

#### **ASSISTANT MANAGER**

- S.D. Co-Educational Sen. Sec. School, Sham Chaurasi (Hoshiarpur) for 3-years i.e. 20-11-2021 to 19-11-2024
- G.G.D.S.D. Sen. Sec. School, Haryana (Hoshiarpur) for 3-years i.e. 20-11-2021 to 19-11-2024
- Dewan Chaman Lal Katyal S.D. Playway School, Haryana (Hoshiarpur) for 3-years i.e. 20-11-2021 to 19-11-2024

#### **CHAIRPERSON/SUBJECT EXPERT**

- Act as Chairperson in National Seminar on “Recent Trends in Science and Technology” (Technical Session) on March 7<sup>th</sup>, 2018 organised by Science and Computer Science Departments, Guru Teg Bahadur Khalsa College for Women, Dasuya, Hoshiarpur, Punjab sponsored by College Development Council, Panjab University, Chandigarh, India
- Act as Subject Expert for the selection of Assistant Professor in Physics on June 6<sup>th</sup>, 2018 at GTB Khalsa College, Dasuya
- Act as Subject Expert for the selection of Lecturer in Physics in June 2018, 2019 at Cambridge International School, Nawan Shahr (Shaheed Bhagat Singh Nagar)
- Act as Judge for “Science Project Making Competition” in DIPS Haryana on August 9<sup>th</sup>, 2018

#### **REFRESHER/ORIENTATION/SHORT TERM COURSES**

- Attended General Orientation Course (GOC-65) at Academic Staff College, Guru Nanak Dev University, Amritsar, Punjab from 03-06-2005 to 30-06-2005 (4-weeks)
- Attended Refresher Course in Physics at Academic Staff College, University of Jammu from 01-02-2010 to 22-02-2010 (3-weeks)
- Attended Refresher Course in Pure Sciences (Physics, Chemistry & Mathematics) at Academic Staff College, Guru Nanak Dev University, Amritsar, Punjab from 15-05-2014 to 04-06-2014 (3-weeks)
- Attended Refresher Course in Environmental Studies at Human Resource Development Centre, Panjab University, Chandigarh, Punjab from 27-06-2015 to 17-07-2015 (3-weeks)
- Attended Short Term Course in Research Methodology at Human Resource Development Centre, Guru Nanak Dev University, Amritsar, Punjab from 27-05-2017 to 02-06-2017 (1-week)
- Attended Seven Day Faculty Development Program (FDP) on Research Methodology organized by Department of Management with IQAC, SD College, Hoshiarpur in collaboration with GGDS College, Haryana, SGHRS College for Women, Chabbewal from 06-06-2021 to 12-06-2021 (1-week)

#### **RESEARCH EXPERIENCE**

##### **FIELD OF RESEARCH**

- Materials Science –Solid State Ionics (Polymer electrolytes, Nano-composite Polymer electrolytes, Natural Gum Based Gels)

##### **RESEARCH TRAINING**

- Synthesis and characterization of synthetic and natural polymeric materials in gel as well as film form for their use in various electrochemical devices viz. high energy density batteries, fuel cell, electrochromic windows, solar cell, supercapacitors, sensors etc.
- Investigating properties of electrolytes using impedance spectroscopy, FTIR Spectroscopy, Thermal Studies (DSC/TGA), XRD Studies and Rheological Properties/Dynamic Mechanical Analysis (DMA) studies

##### **RESEARCH PROJECTS UNDERTAKEN:**

1. **Research Project (Completed):**  
**Title:** Nano dispersed polymer gel electrolytes

Grant worth Rs. 1,75,000/- sanctioned by University Grants Commission, New Delhi

Period: March 2011 – September 2012

2. **Research Project (Completed):**

**Title:** Natural gum based gel biopolymer electrolytes for sustainable energy sources

Grant worth Rs. 1,55,000/- sanctioned by Department of Alumni Relations, Panjab University Chandigarh

Period: August 2020 – August 2022

**RESEARCH SUPERVISOR**

- Mr. Viney Sharma, registered for Ph.D. on the topic of “Transport and spectroscopic studies of natural and synthetic polymer based nano-composite electrolytes”, Department of Physics, Panjab University, Chandigarh in February 2017
- Ms. Simranpreet Kaur, enrolled for Ph.D., Department of Physics, Sant Baba Bhag Singh University, Jalandhar in August 2017
- Mr. Vishal Sharma, enrolled for Ph.D., Department of Physics, Sant Baba Bhag Singh University, Jalandhar in 2016
- Ms. Harkawal Singh, Research Assistant on the topic “Fabrication and characterization of different materials for photovoltaics and gas sensing applications” from April 2019-February 2020
- Mr. Subodh Kant Lath, enrolled for Ph.D., Department of Physics, Career Point University, Hamirpur (H.P.) on 16-06-2021

**RESEARCH COLLABORATION**

- Dr. Dinesh Pathak, Faculty Member in Physics, University of West Indies, St Augustine Campus, Trinidad, West Indies w.e.f. 26-10-2020
- Dr. Dinesh Pathak, Associate Professor, Department of Physics, Sri Sai University, Palampur from 2017-2020
- Dr. Narinder Arora, Assistant Professor, Department of Physics, DAV College, Amritsar from 2017-2021

**MEMBER, EDITORIAL BOARD**

- Review Editor on Editorial Board of an International journal “Frontiers in Nanotechnology: Nanotechnology for energy Applications” published by Frontiers Media S.A., Switzerland (2022 onwards) - SCOPUS indexed Journal
- Associate Editorial Board Member of an International journal “Current Materials Science (Formerly Recent Patents on Materials Science)” published by Bentham Science Publishers, UAE (2019-2022) - SCOPUS indexed Journal
- Associate Editorial Board Member of an International journal “Current Applied Polymer Science” published by Bentham Science Publishers, UAE (2019-2022)
- Editor in Chief of an International journal “Journal on Physical Sciences” published by i-Manager’s Publications (2019)
- Editorial Board Member of an International journal “Current Smart Materials” published by Bentham Science Publishers, UAE (2019-2020) - ICI indexed Journal
- Editorial Board Member of an International journal “Journal on Material Science” published by i-Manager’s Publications (2017-2022) – ICI indexed Journal
- Editorial Board Member of an International journal “Journal on Future Engineering and Technology” published by i-Manager’s Publications (2018-2022) - ICI indexed Journal

**MEMBERSHIPS**

- Lifetime Membership – Microscopy, Electrochemistry, Solid State Electrochemistry, Materials Today, Reinforced Plastics

**LIST OF PUBLICATIONS (Total 44 Research Papers)**

**(In SCI/SCOPUS Indexed Journals):**

Conductivity study on proton conducting nanocomposite plasticized polymer electrolytes: A review  
High ion conducting and thixotropic nature of water-soluble xanthan gum-based electrolytes

1. Viscoelastic and high ion conducting gum tragacanth based gel polymer electrolytes  
Viney Sharma, Narinder Arora, Rajiv Kumar, Sunaina Verma and Shuchi Sharma  
***Bulletin of Materials Science (2022) – Accepted for Publication***  
(WoS/SCOPUS Cited Publication) (IF=1.878)  
Published by Springer Nature, Switzerland AG, (Indian Academy of Sciences, Bangalore)
2. High ion conducting and thixotropic nature of water-soluble xanthan gum-based electrolytes  
Narinder Arora, Viney Sharma, **Rajiv Kumar**, Simranjit Singh, Rajesh Kumar, Sunaina Verma, Shuchi Sharma  
***Bulletin of Materials Science (2022) – Accepted for Publication***  
(WoS/SCOPUS Cited Publication) (IF=1.878)  
Published by Springer Nature, Switzerland AG, (Indian Academy of Sciences, Bangalore)
3. Conductivity study on proton conducting nanocomposite plasticized polymer electrolytes: A review  
Shuchi Sharma, Dinesh Pathak, Naresh Dhiman, **Rajiv Kumar**, Kamlesh Kumar Prashar, Manoj Kahol, Narinder Arora, Viney Sharma  
***Current Materials Science 15 (2022) 229-250***  
DOI: [10.2174/2666145415666220330104918](https://doi.org/10.2174/2666145415666220330104918) (SCOPUS Cited Publication)  
Link: <https://www.eurekaselect.com/article/122041>  
Published by Bentham Science Publishers, UAE
4. Characterization of PMMA based nanocomposite plasticized polymer electrolytes: Effect of plasticizer and fumed silica  
**Rajiv Kumar**, Subodh Kant Lath, Rajender Kumar, Vishal Sharma, Honey Sharma, Shuchi Sharma, Simranpreet Kaur, Narinder Arora, Viney Sharma, M.L. Kaushal  
***Journal of New Technology and Materials 12 (2022) 37-43***  
DOI: [10.2174/2666145415666220330104918](https://doi.org/10.2174/2666145415666220330104918) (Web of Science cited Publication)  
Link: <https://www.asjp.cerist.dz/en/article/192474>  
Published by Université Larbi Ben Mhidi de Oum El Bouaghi, Algeria
5. Effect of polyvinyl alcohol on electrical, spectroscopic and thermal properties of gum acacia-based gel electrolytes containing NaOH.  
Viney Sharma, Narinder Arora, **Rajiv Kumar**, Simranjit Singh, Sunaina Verma  
***Polymer Bulletin 79 (2022) 8865-8882***  
<https://doi.org/10.1007/s00289-021-03915-3> (WOS/SCOPUS Cited Publication)  
Published by Springer Nature, Switzerland AG (Impact Factor = 2.870)
6. Effect of heat treatment on thermal and mechanical stability of NaOH-doped xanthan gum-based hydrogels  
Viney Sharma, **Rajiv Kumar**, Narinder Arora, Simranjit Singh, Navjeet Sharma, Amit Anand, Subheet Kumar Jain, Shuchi Sharma  
***Journal of Solid State Electrochemistry 24 (2020) 1337-1347*** (WOS/SCOPUS Cited Publication)  
Link: <https://link.springer.com/article/10.1007/s10008-020-04641-y>  
Published by Springer, 233 Spring ST, New York, USA, NY, 10013 (Impact Factor = 2.646)
7. Study of PVA-based nanocomposite polymer gels containing weak aliphatic dicarboxylic acids  
**Rajiv Kumar**, Simranpreet Kaur, Navneet Singh, Honey Sharma, Shuchi Sharma  
***Surface Innovations Vol. 8 (2020) 182-189*** (WoS/SCOPUS indexed)  
Link: <https://www.icevirtuallibrary.com/doi/abs/10.1680/jsuin.19.00057>  
Published by ICE Publishing, England (Impact Factor = 3.016)
8. FTIR, thermal and ionic conductivity studies of nanocomposite polymer electrolytes  
Shuchi Sharma, Dinesh Pathak, Naresh Dhiman, **Rajiv Kumar**, Manoj Kumar  
***Surface Innovations Vol. 7 (2019) 51-58*** (WoS/SCOPUS indexed)  
Link:  
Published by ICE Publishing, England (Impact Factor = 3.016)

9. Ionic Conductivity, SEM, TGA and Rheological studies of Nano-dispersed silica based polymer gel electrolytes containing LiBF<sub>4</sub>  
Narinder Arora, Simranjit Singh, **Rajiv Kumar**, Rajesh Kumar, Anita Kumari  
*Solid State Ionics* 317 (2018) 175-182 (SCI/WoS/SCOPUS indexed)  
Link:  
(Elsevier Science BV, Netherlands, ISSN [0167-2738](#), IF (JCR) = 3.785)
10. FTIR and rheological studies of PMMA-based nano-dispersed gel polymer electrolytes incorporated with LiBF<sub>4</sub> and SiO<sub>2</sub>  
Simranjit Singh, Narinder Arora, Kamaldeep Paul, **Rajiv Kumar**, Rajesh Kumar,  
*Ionics* (2019) 25 1495-1503 (SCI/WoS/SCOPUS indexed)  
(Springer Verlag, Germany, ISSN 0947-7047, IF (JCR) = 2.394)
11. Ionic conductivity, FTIR and thermal studies of nano-composite plasticized proton conducting polymer electrolytes  
**Rajiv Kumar**, Shuchi Sharma, Dinesh Pathak, Naresh Dhiman, Narinder Arora  
*Solid State Ionics Vol. 305* (2017) pp. 57-62 (SCI/WoS/SCOPUS indexed)  
published by Elsevier Science BV, Netherlands (Impact Factor (JCR) = 3.785)
12. Characterization of PVdF-HFP based nano-composite plasticized polymer electrolytes  
Shuchi Sharma, Dinesh Pathak, Naresh Dhiman, **Rajiv Kumar**  
*Surface Innovations Vol.5 (4)* (2017) pp. 251-256 (SCI/WoS/SCOPUS indexed)  
Published by ICE Publishing, England (Impact Factor = 3.016)
13. Conductivity modification of gum acacia based gel electrolytes  
Narinder Arora, Viney Sharma, Rajesh Kumar, **Rajiv Kumar**  
*Emerging Materials Research* 7 (2018) 89-94 (SCI/WoS/SCOPUS Cited)  
published by ICE publishing, England (Impact Factor = 0.413, ISSN 2046-0147)
14. Electrical characterization of nano-composite polymer gel electrolytes containing NH<sub>4</sub>BF<sub>4</sub> and SiO<sub>2</sub>: Role of donor number of solvent and fumed silica  
**Rajiv Kumar**, Narinder Arora, Shuchi Sharma, Naresh Dhiman, Dinesh Pathak  
*Ionics* 23 (2017) 2761-2766. (SCI/WOS/SCOPUS Cited Publication)  
Published by Springer Heidelberg Tiergartenstrasse 17, Heidelberg Germany, D-69121  
(Impact Factor = 2.394; ISSN = 0947-7047)
15. Effect of nano-size fumed silica on ionic conductivity of PVdF-HFP based plasticized nano-composite polymer electrolytes  
Shuchi Sharma, Naresh Dhiman, Dinesh Pathak and **Rajiv Kumar**  
*Ionics* 22 (2016) 1865-1872 (SCI/SCOPUS Cited Publication)  
Published by Springer Heidelberg Tiergartenstrasse 17, Heidelberg Germany, D-69121  
(Impact Factor = 2.394; ISSN = 0947-7047)  
Published by Oriental Scientific Publishing Company, Bhopal, India (ISSN = 0973-3469)
16. Nano-composite polymer gel electrolytes containing ortho-nitro benzoic acid: Role of dielectric constant of solvent and fumed silica  
**Rajiv Kumar**  
*Indian Journal of Physics* 89(2015)pp.241-248 (SCI/SCOPUS Cited Publication)  
Published by Springer Heidelberg Tiergartenstrasse 17, Heidelberg Germany, D-69121  
(Impact Factor = 1.407; ISSN = 0973-1458)
17. Conductivity, FTIR studies and thermal behavior of PMMA-based proton conducting polymer gel electrolytes containing triflic acid  
**Rajiv Kumar** and S.S. Sekhon  
*Ionics* 19 (2013) pp. 1627-1635 (SCI/SCOPUS Cited Publication)  
Published by Springer Heidelberg Tiergartenstrasse 17, Heidelberg Germany, D-69121  
(Impact Factor = 2.394; ISSN = 0947-7047)
18. Conductivity modification of proton conducting polymer gel electrolytes containing a weak acid (ortho-hydroxy benzoic acid) with the addition of PMMA and fumed silica  
**Rajiv Kumar** and S.S. Sekhon

- Journal of Applied Electrochemistry* **39** (2009) pp. 439-445 (SCI/SCOPUS Cited Publication)  
Published by Springer Van Godewijkstraat 30, Dordrecht, Netherlands, (**Impact Factor = 2.384**)
19. Effect of molecular weight of PMMA on the conductivity and viscosity behaviour of polymer gel electrolytes containing  $\text{NH}_4\text{CF}_3\text{SO}_3$   
**Rajiv Kumar** and S.S. Sekhon  
*Ionics* **14** (2008) pp. 509-514 (SCI/SCOPUS Cited Publication)  
Published by Springer Heidelberg Tiergartenstrasse 17, Heidelberg Germany, D-69121  
(**Impact Factor = 2.394**; ISSN = 0947-7047)
20. FTIR study of ion dissociation in PMMA based gel electrolytes containing ammonium triflate: Role of dielectric constant of solvent  
**Rajiv Kumar**, Jitender Paul Sharma, S.S. Sekhon  
*European Polymer Journal* **41** (2005) pp. 2718-2725 (SCI/SCOPUS Cited Publication)  
Published by Pergamon-Elsevier Science Ltd., The Boulevard, Langford Lane, Kidlington, Oxford, England OX5 1GB (**Impact Factor = 4.598**; ISSN = 0014-3057)
21. Effect of dielectric constant of solvent on the conductivity behaviour of polymer gel electrolytes  
**Rajiv Kumar**, Boor Singh and S.S. Sekhon  
*Journal of Materials Science Letters* **40** (2005) pp. 1273-1275 (SCI/SCOPUS Cited Publication)  
Springer, 233 Spring St., New York, USA, NY 10013 (**Impact Factor = 3.553**; ISSN = 1573-4811)
22. Conductivity and viscosity behaviour of PMMA based gels and nano dispersed gels: Role of dielectric constant of solvent  
Boor Singh, **Rajiv Kumar** and S.S. Sekhon  
*Solid State Ionics* **176** (2005) pp. 1577-1583 (SCI/SCOPUS Cited Publication)  
Published by Elsevier Science B.V., PO Box 211, Amsterdam, Netherlands, 1000 AE  
(**Impact Factor = 3.785**; ISSN = 0167-2738)
23. Correlation between ionic conductivity and fluidity of polymer gel electrolytes containing  $\text{NH}_4\text{CF}_3\text{SO}_3$ .  
Harinder Pal Singh, **Rajiv Kumar** and S.S. Sekhon  
*Bulletin of Materials Science* **28** (2005) pp. 467-472 (SCI/SCOPUS Cited Publication)  
Published by Springer Science and Business Media Inc. – Verlag, Germany  
(**Impact Factor = 1.392**; ISSN = 0250-4707)
24. Evidence of ion pair breaking by dispersed polymer in polymer gel electrolytes  
**Rajiv Kumar** and S.S. Sekhon  
*Ionics* **10** (2004) pp. 436-442/10-16 (SCI/SCOPUS Cited Publication)  
Published by Springer Heidelberg Tiergartenstrasse 17, Heidelberg Germany, D-69121  
(**Impact Factor = 2.394**; ISSN = 0947-7047)

#### Chapters Published in the Books by International Publishers (Elsevier):

- Nanodispersed polymer gels used as electrolytes in lithium-ion batteries  
**Rajiv Kumar**, Shuchi Sharma, Dinesh Pathak, Viney Sharma, Simranpreet Kaur and Vishal Sharma  
*Nano Tools and Devices for Enhanced Renewable Energy, Chapter 3, (2021) 1st Edition*  
– In press <https://doi.org/10.1016/B978-0-12-821709-2.00010-4>  
Eds.: Sheila Devasahaym Chaudhery Hussain  
Published by Elsevier B.V., Radarweg 29, 1043 NX Amsterdam, The Netherlands  
ISBN: 9780128217092  
<https://books.google.co.in/books?id=xzASEAAAQBAJ&printsec=frontcover#v=onepage&q&f=false>
- Nano-composite polymer electrolytes used in energy devices  
Shuchi Sharma, Dinesh Pathak, **Rajiv Kumar**, Viney Sharma, Narinder Arora, Simranpreet Kaur and Vishal Sharma  
*Nano Tools and Devices for Enhanced Renewable Energy, Chapter 2, (2021) 1st Edition*  
– In press <https://doi.org/10.1016/B978-0-12-821709-2.00002-5>  
Eds.: Sheila Devasahaym Chaudhery Hussain  
Published by Elsevier B.V., Radarweg 29, 1043 NX Amsterdam, The Netherlands

ISBN: 9780128217092

<https://books.google.co.in/books?id=xzASEAAAQBAJ&printsec=frontcover#v=onepage&q&f=false>

**In Non-SCI Journals or ICI Journals)**

1. A Review on polymer gel electrolytes  
Vishal Sharma, **Rajiv Kumar**, Honey Sharma, Shuchi Sharma  
*Strad Research 7 (2020) 659-671*
2. Ion conducting polymer electrolytes – A Review  
Vishal Sharma, **Rajiv Kumar**  
*Pramana Research Journal 9 (2019) 348-355 (ICI Cited Publication)*  
Published by Acharya Academy, Rohtak, India
3. Electrical characterization of PVdF based proton conducting polymer gel electrolytes  
**Rajiv Kumar**  
*Current Smart Materials 1 (1) (2016) 63-67 (ICI Cited Publication)*  
Published by Bentham Science Publishers, U.A.E. (ISSN 2405-4658)
4. Effect of donor number of plasticizers on conductivity of polymer electrolytes containing NH<sub>4</sub>F  
Shuchi Sharma, Naresh Dhiman, Dinesh Pathak and **Rajiv Kumar**  
*Journal on Material Science 3 (4) (2016) pp. 28-34 (ICI Cited Publication)*  
i-Manager's Publications, Kanyakumari, Tamilnadu, India. (ISSN = 2347-2235)
5. Role of polymer in enhancement of conductivity of proton and lithium conducting polymer gel electrolytes  
**Rajiv Kumar**, Shuchi Sharma, Naresh Dhiman and Dinesh Pathak  
*Journal on Material Science 4 (2) (2016) pp. 1-8 (ICI Cited Publication)*  
i-Manager's Publications, Kanyakumari, Tamilnadu, India. (ISSN = 2347-2235)
6. Study of proton conducting PVdF based plasticized polymer electrolytes containing ammonium fluoride  
**Rajiv Kumar**, Shuchi Sharma, Naresh Dhiman and Dinesh Pathak  
*Material Science Research India 13 (1) 2016 pp. 21-27*
7. Electrical properties of nanocomposite polymer gels based on PMMA-DMA/DMC-LiClO<sub>4</sub>-SiO<sub>2</sub>  
**Rajiv Kumar**  
*Journal on Materials Science 3 (2) (2015) pp. 21-27 (ICI Cited Publication)*  
Published by i-Manager's Publications, Kanyakumari, Tamil Nadu, India (ISSN = 2347-2235)
8. Characterization of proton conducting polymer electrolytes based on 2,3-dimethyl-1-octylimidazolium triflate (DMOImTf) ionic liquid  
**Rajiv Kumar**  
*International Journal of Science, Technology and Management 4(1) (2015) pp.433-441*  
Published by A.R. Publications, New Delhi, India (ISSN = 2394-1537)
9. Effect of donor number of solvent and nano-filler on electrical behaviour of composite gel electrolytes  
**Rajiv Kumar**  
*Insight 1 (1) (2014) pp. 1-6*  
Published by DAV College, Hoshiarpur, Punjab (ISSN = 2394-0360)
10. Enhancement in electrical properties of PEO based nano-composite gel electrolytes  
**Rajiv Kumar**  
*Journal on Materials Science 2 (3) (2014) pp. 12-17 (ICI Cited Publication)*  
Published by i-Manager's Publications, Kanyakumari, Tamil Nadu, India (ISSN = 2347-2235)
11. Comparison of composite proton conducting polymer gel electrolytes containing weak aromatic acids  
**Rajiv Kumar**  
*Journal on Materials Science 2 (2) (2014) pp. 23-34 (ICI Cited Publication)*  
Published by i-Manager's Publications, Kanyakumari, Tamil Nadu, India (ISSN = 2347-2235)

**(In Conference Proceedings)**

1. Conductivity enhancement with polymer addition in non aqueous polymer gel electrolytes  
S.S. Sekhon, **Rajiv Kumar** and Boor Singh



- Proceedings of 9<sup>th</sup> Asian Conference on Solid State Ionics: Science and Technology of Ions in Motion, in Jeju Island, South Korea, from 6-11 June 2004, Chowdari, B.V.R., Yoo, H. –I., Choi, G.M. and Lee, I.-H. (Eds.), World Scientific, Singapore, with ISBN: 978-981-238-932-9 (handover) and 978-981-270-258-6 (ebook) pp. 911-922. (*NON-SCOPUS Cited Publication*)  
Available online at [www.worldscibooks.com/engineering/5599.html](http://www.worldscibooks.com/engineering/5599.html)
2. Role of Physics in sports  
Shuchi Sharma and **Rajiv Kumar**  
Proceedings of National Seminar on Physical Education: A Holistic Approach of Success, at GGSDS College, Haryana, Hoshiarpur, Punjab on February 4, 2012, Sharma, G.K., Kaur, H. and Kaushal, M.L. (Eds.), Takkar Printing Press, Jalandhar, with ISBN: 978-81-9212-383-7 pp. 225-237.
  3. Electrical, Thermal and FTIR studies of nano-dispersed polymer gel electrolytes  
**Rajiv Kumar**  
Proceedings of an International Conference on Frontiers in Nano Science and Technology and their Applications, Emerging Paradigms in Nanotechnology, at Punjab University, Chandigarh, India from February 16-18, 2012, Sobti, R.C., Kaushik, A., Singh, B. and Tripathi, S.K. Sharma, A. (Eds.), Dorling Kindersley, New Delhi, India, licences of Pearson Education in South Asia with ISBN: 978-81-317-8991-9 pp. 677-685.
  4. Quality management in Higher Education: A Multidimensional concept  
**Rajiv Kumar**  
Proceedings of National Seminar on Changing Paradigm of Higher Education in Punjab, at Guru Nanak College, Killianwali, Muktsar, Punjab on March 10, 2011, Arora, M. and Bhushan, B. (Eds.), Lokgeet Parkashan, Sec. 34-A, Chandigarh with ISBN: 978-93-5017-909-3 pp. 100-110.
  5. PMMA based Nano dispersed polymer gel electrolytes containing triflic acid for device applications  
**Rajiv Kumar**  
Proceedings of DAV National Congress of Science and Technology at DAV Institute of Engineering and Technology, Jalandhar, on May 30-31, 2013, Sangal, A.L., Singh, J., Saini, S. and Goel, S. (Eds.), Excel India Publishers, New Delhi with ISBN: 978-93-82062-38-7 pp. 2039-2049.
  6. PEO based nano-composite proton conducting polymer gel electrolytes containing ammonium salt  
**Rajiv Kumar**  
Proceedings of National Seminar on Chemistry for a Better Tomorrow: Current Trends and Challenges at Mata Gujri College, Sri Fatehgarh Sahib, Punjab on March 8, 2014, Sidhu, J. S., and Kaur, K. (Eds.), Shaheed-E-Azam Printing Press Pvt. Ltd. Patiala with ISBN: 978-93-82815-09-9 pp. 83-93.
  7. Comparison of composite proton conducting polymer gel electrolytes containing weak aromatic acids  
**Rajiv Kumar**  
Proceedings of National Conference on Advances in Material Sciences at Amritsar College of Engineering and Technology, Amritsar, Punjab on April 4-5, 2014, Sareen, A. (Ed.), with ISBN: 978-81-924867-2-7 pp. 228-236.
  8. PEO based nano-composite gels with enhanced electrical and thermal properties  
**Rajiv Kumar**  
Proceedings of National Conference on Mechanical Engineering at PU SSG Regional Centre, Hoshiarpur, Punjab on November 7-8, 2014, Singh, H. P., Singh, J. and Dogra, M. (Eds.), with ISBN: 978-81-930353-0-6 pp. 169-173.

**Research papers presented in Conferences/Seminars/Symposia etc.**

S.N	Title of the paper presented	Title of Conference /Seminar etc.	Date(s) of the event	Organised by	Whether International/ National/State/Regional/ or College Level
1.	Effect of solvent on the conductivity behaviour of polymer gel electrolytes containing ammonium triflate	Modern Trends in Chemical Science and Technology (MTCST-2005)	15-17 October 2005	PG Department of Chemistry, D.A.V. College, Jalandhar, Punjab	National Level
2.	Fuel Cells: A New hope for the Millenium	Environmental Imbalances- Causes and Cure	8 <sup>th</sup> December 2007	Arya Kanya Mahavidyalya, Shahabad, Markanda, Haryana	Regional Level
3.	Electrochemical Characterization of Nano dispersed polymer gel electrolytes	International Seminar on Nano Materials (ISNM-2009)	28-29 October 2009	Department of Physics, KMV Jalandhar	International Level
4.	A Novel proton conducting polymer gel electrolytes for applications in fuel cells	International Conference on Environmental Challenges: A Global Concern (ICEC-2010)	15-16 October 2010	Faculty of Sciences, KMV Jalandhar	International Level
5.	Synthesis of thin films: Liquid Shampoo	National Conference on Materials Science Technology (NCMST-2010)	23 <sup>rd</sup> October, 2010	PG Department of Physics D.A.V. College, Jalandhar, Punjab	National Level
6.	Not an Inconvenient truth but an epic challenge	Global Warming and Biodiversity Conservation	27-28 January 2011	PG Department of Zoology, JC DAV College, Dasuya, Hoshiarpur, Punjab	State Level
7.	Nano-dispersed lithium conducting gel electrolytes for device applications	International Conference on Emerging Trends in Chemistry	11-12 February 2011	Department of Chemistry, Panjab University, Chandigarh	International Level
8.	Impact of Science on Social Life of Per-Independent India from 1900 to 1950 A.D.	National Seminar on the History of Social Change in India from 1900 to 1950 A.D.	3 <sup>rd</sup> March 2011	Department of History, G.G.D.S.D. College, Haryana, Hoshiarpur, Punjab	National Level
9.	Ionic liquid based polymer electrolytes for electrochemical devices	International Conference on Innovations in Chemistry for Sustainable Development (ICSD-11)	1-3 December 2011	Department of Chemistry, Panjab University, Chandigarh & Indian Chemical Society	International Level
10.	Role of Physics in Sports	National Level Seminar on Physical Education: A Holistic Approach of Sccess	4 February 2012	Department of Physical Education, G.G.D.S.D. College, Haryana, Hoshiarpur, Punjab	National Level
11.	Electrical, thermal and FTIR studies of nano-dispersed polymer gel electrolytes	International Conference on Frontiers in Nano Science, Nanotechnology and their Applications (NanoSciTech-2012)	16-18 Feb. 2012	University Institute of Chemical Engineering and Technology (UICET), Panjab University, Chandigarh	International Level
12.	Nanosized filler induced changes in electrical and stability properties of polymer electrolyte containing ionic liquid (DMOImTf)	National Level Seminar on "The Use of Ionic Liquids in Chemistry"	25 <sup>th</sup> Feb. 2012	Department of Chemistry, S.G.G.S. Khalsa College, Mahilpur, Hoshiarpur	National Level
13.	Effect of SiO <sub>2</sub> on	National Conference on	2-3 March	Post-Graduate	National Level

	conductivity performance of nano-dispersed polymer gel electrolytes for proton batteries	Materials Science: Applications in Energy & Environment (NCMS-2012)	2012	Departments of Physics & Chemistry, (DST-FIST supported Departments) D.A.V. College, Jalandhar	
14.	Introduction of Physics	College Level Seminar on Introduction of Physics	22 March 2012	G.G.D.S.D. College, Haryana, Hoshiarpur, Punjab	College Level
15.	Effect of nano particles (SiO <sub>2</sub> ) on conductivity and mechanical properties of polymer gel electrolytes containing LiCF <sub>3</sub> SO <sub>3</sub>	National Symposium on Nanobiotechnology (NSNT-2012)	1-2 June 2012	Indian Institute of Technology (IIT), Mandi, Himachal Pradesh	National Level
16.	Nano-filler Al <sub>2</sub> O <sub>3</sub> doped polymer gel electrolytes containing triflic acid for device applications	International Conference "Chemical Constellation Cheminar – 2012" on the theme of Chemistry for Sustainable Development and Innovations (CCC-2012)	10-12 September 2012	National Institute of Technology (NIT), Jalandhar (Punjab)	International Level
17.	Study of ion conducting behaviour of PVdF-HFP based plasticized nanocomposite polymer electrolytes containing HCF <sub>3</sub> SO <sub>3</sub>	Polymers on the Frontiers of Science and Technology (APA-2013)	21-23 February 2013	Asian Polymer Association, European Polymer Federation and UICET, Panjab University, Chandigarh	International Level
18.	PMMA based nano dispersed polymer gel electrolytes containing triflic acid	National Congress on Science and Technology	30-31 May 2013	D.A.V. Institute of Engineering and Technology, Jalandhar, Punjab	National Level
19.	Effect of nano particles (SiO <sub>2</sub> ) on conductivity and mechanical properties of polymer gel electrolytes containing LiCF <sub>3</sub> SO <sub>3</sub>	National Seminar on Innovative and Sustainable Engineering	11 November 2013	UICET, Panjab University, Chandigarh	National Level
20.	PEO based nano-composite proton conducting polymer gel electrolytes containing ammonium salt	National Seminar on Chemistry for a Better Tomorrow: Current Trends and Challenges	8 March 2014	Mata Gujri College Sri Fatehgarh Sahib, Punjab	National Level
21.	Comparison of composite proton conducting polymer gel electrolytes containing weak aromatic acids	National Conference on Advances in Material Sciences	4-5 April 2014	Amritsar College of Engineering & Technology, Anritsar	National Level
22.	PEO based nano-composite gels with enhanced electrical and thermal properties	National Conference on Mechanical Engineering	7-8 November 2014	PU SSG Regional Centre Hoshiarpur, Punjab	National Level
23.	Study of electrical and thermal properties of alumina based nano-composite gels for fuel cell applications	New Vistas in Chemical Sciences	15 <sup>th</sup> November 2014	DAV College, Hoshiarpur Punjab	National Level
24.	Enhanced dissociation by dispersing nano-particles in proton conducting polymer gel electrolytes	National Conference on Emerging Challenges in Physics and Nano-Science	4 <sup>th</sup> March 2015	JC DAV College Dasuya, Punjab	National Level
25.	Characterization of proton conducting polymer electrolytes based on 2,3-	International Conference on Science, Technology and Management	27 <sup>th</sup> September 2015	Delhi University, New Delhi	International Level

	dimethyl-1-octylimidazolium triflate (DMOImTf) ionic liquid				
26.	Nanotechnology: Emerging carrier in drug delivery system	National Conference on Emerging Trends in Life Sciences	12 <sup>th</sup> March 2016	JC DAV College, Dasuya, Hoshiarpur, Punjab	National Level
27.	Study of alumina doped PEO based nano-composite polymer gel electrolytes	2 <sup>nd</sup> International Conference on Harnessing Engineering, Technology & Innovation for sustainable Growth (HETIS 2016)”	30 <sup>th</sup> Sept. – 1 <sup>st</sup> Oct. 2016	Dr. S.S. Bhatnagar University Institute of Chemical Engineering & Technology, Panjab University, Chandigarh	International Level
28.	Electrical Characterization of PMMA based nano-composite polymer gel electrolytes	National Conference on Research Trends in Physics and Electronics (NPE-2016)	25-26 November 2016	S.G.G.S. Khalsa College, Mahilpur, Punjab in collaboration with Indian Society for Radiation Physics & Nuclear Track Society of India	National Level
29.	Conductivity, pH, viscosity and thermal studies of nano-composite polymer gel electrolytes containing triflic acid	National Conference on Recent Trends in Experimental and Theoretical Research	23-24 November 2017	Sri Sai University, Palampur (H.P.) sponsored by Council of Scientific and Industrial Research (CSIR), New Delhi	National Level
30.	Conductivity, thermal and Rheological studies of polymer electrolytes	National Conference on Emerging Trends in Scientific Techniques	15 <sup>th</sup> February 2018	DAV College, Hoshiarpur sponsored by College Development Council, Panjab University, Chandigarh	National Level
31.	Electrical and rheological studies of nano-dispersed gel polymer electrolytes	National Seminar on Interface between Basic Science Research, Modern Technology and Environmental Sustainability	3 <sup>rd</sup> May 2019	Sai School of Applied Sciences, Sri Sai University, Palampur	National Level
32.	FTIR, thermal and rheological studies of xanthan gum based gel electrolytes: Effect of heat treatment on stability of gel electrolytes	22 <sup>nd</sup> International Conference on Solid State Ionics (SSI-22)	16-21 June 2019	Alpensia Resort, PyeongChang, South Korea	International Level
33.	Conductivity and pH studies of xanthan gum based nanocomposite gel electrolytes containing ammonium salt	Online National Conference “Advances in Physical Science and Materials”	11 May 2021	JC DAV College, Dasuya	National Level

#### Participation in Conferences/Seminars/Workshops/Symposia/Webinars:

S.N.	Title of Conference /Seminar etc.	Date(s) of the event	Place of Event	Organised by	Sponsored by	Whether International/ National/State/Regional/ or College Level
1.	XII National Symposium on Ultrasonics (NSU)	3-5 Nov. 2003 (3-days)	Amritsar	Department of Applied Physics, Guru Nanak Dev University, Amritsar	Guru Nanak Dev University, Amritsar	National Level
2.	51 <sup>st</sup> BRNS-IANCAS National workshop on Radiochemistry	10-17 November 2003	Amritsar	Department of Physics, GNDU, Amritsar & Indian	Board of Research in Nuclear Sciences and Department of Atomic	National Level

	and Applications of Radioisotopes	(8-days)		Association of Nuclear Chemists and Allied Scientists (IANCAS)	Energy, Govt. of India (BRNS, DAE)	
3.	International Conference on Electroactive Polymers: Materials and Devices (ICEP-2004)	1-5 November, 2004 (5-days)	Dalhousie (H.P)	Materials Research Society of India (MRSI)	Materials Research Society of India (MRSI)	International Level
4.	49 <sup>th</sup> DAE Solid State Physics Symposium	26-30 Dec. 2004 (5-days)	Amritsar	Department of Physics, Guru Nanak Dev University, Amritsar	Board of Research in Nuclear Sciences and DAE, Govt. of India	National Level
5.	National Conference on Total Quality Management in Higher Education – A Journey Towards Excellence	23-24 December 2005 (2-days)	Jalandhar	Hans Raj Mahila Maha Vidyalaya, Jalandhar, Punjab	National Assessment and Accreditation Council (NAAC), Bangalore	National Level
6.	“Punjabi Sabhyachar De Badalde Pripekha”	7 <sup>th</sup> March 2011 (1-day)	Haryana (Hoshiarpur)	P.G. Department of Punjabi, G.G.D.S.D. College, Haryana (Hoshiarpur)	University Grants Commission, New Delhi	State Level
7.	Economic Development in North-West Region of India: Challenges and Possibilities	9 February 2013 (1-day)	Haryana (Hoshiarpur)	Department of Economics, G.G.D.S.D. College, Haryana (Hoshiarpur)	University Grants Commission, New Delhi	National Level
8.	Punjabi Novel: Dasha Te Disha	18 February 2013	Haryana (Hoshiarpur)	P.G. Department of Punjabi, G.G.D.S.D. College, Haryana (Hoshiarpur)	College Development Council, Panjab University, Chandigarh	State Level
9.	State Level Seminar on Autonomy in Education	5 November 2014	Haryana (Hoshiarpur)	GGDSD College, Haryana, Hoshiarpur, Punjab	Shiksha Sanskriti Uthhan Nyas, Punjab	State Level
10.	National Level Workshop on Autonomy in Education	20-21 August 2016	Haryana (Hoshiarpur)	GGDSD College, Haryana, Hoshiarpur, Punjab	Shiksha Sanskriti Uthhan Nyas, Punjab	National Level
11.	NAAC sponsored National Level Seminar on Academic & Administrative Audit: A Pre-Requisite for Quality Enhancement	30-31 March 2017	Hoshiarpur	D.A.V. College, Hoshiarpur, Punjab	IQAC, DAV College, Haryana, Hoshiarpur	National Level
12.	One-day workshop on the Role of Local Chapters (National Programme on Technology Enhanced Learning)	18 January 2018	Dasuya	JC DAV College, Dasuya	Indian Institute of Technology, Kanpur	National Level
13.	One-day National Seminar on Drug Eradication and Role of Police	25 January 2018	Haryana	GGDSD College, Haryana (Hsp.)	GGDSD College, Haryana (Hsp.)	National Level

14.	Science Academies' Lecture Workshop on "Quantum Chemistry and Spectroscopy"	September 28-29, 2018	Mahilpur	PG Department of Chemistry, SGGS Khalsa College, Mahilpur, Punjab	Indian Academy of Science (IAS), Bangalore, Indian National Science Academy (INSA), New Delhi and The National Academy of Sciences (NAS), Allahabad.	National Level
15.	National Workshop on "Radiation Detection and Measurement" (RDM-2019)	March 12-13, 2019	Hamirpur	School of Basic and Applied Sciences, Career Point University, Hamirpur	Department of Atomic Energy – Board of Research in Nuclear Sciences (DAE – BRNS) Indian Association of Nuclear Chemists and Allied Scientists (IANCAS)	National Level
16.	National Webinar on "Materials Science, Technology and Society" (MSTS-2020)	May 8-9, 2020	New Delhi	Jawahar Lal Nehru University, New Delhi	School of Physical Sciences	National Level
17.	National Webinar on "Life Affected by Corona: Indian Philosophy"	June 22, 2020	Jaipur	Rajasthan Shikshak Prashikshan Vidyapeeth, Jaipur	Rajasthan Shikshak Prashikshan Vidyapeeth, Jaipur	National Level
18.	One day National Brain Storming webinar on Teacher Education before NCTE and After in India	June 24, 2020	New Delhi	Teacher Educator and Principal Association & Federation of Community Radio Station, New Delhi	Teacher Educator and Principal Association & Federation of Community Radio Station, New Delhi	National Level
19.	International Webinar on Role of Science and Technology to combat COVID-19	July 21, 2020	Jalandhar	Internal Quality Assurance Cell, HMV Jalandhar	Internal Quality Assurance Cell, HMV Jalandhar	International Level
20.	Webinar on Hybrid nanomaterials for Supercapacitor Applications	July 27, 2020	Abohar	DAV College, Abohar	P.G. Department of Physics	National Level
21.	Two Days Seminar cum e-Workshop on "Experimental Electronics"	July 31-August 1, 2020	Jalandhar	HMV Jalandhar	Department of Physics	National Level
22.	National Education Conclave on Re-imagining University Education with a Heart Centered Approach	January 12-13, 2021	New Delhi	National Education Conclave, Heartfulness Education Trust	National Education Conclave, Heartfulness Education Trust, New Delhi	National Level
23.	National Seminar on Recent Advances in Physics	January 23, 2021	Chandigarh	G.G.D.S.D.College, Chandigarh	BOSONS – The Physics Club, Department of Physics	National Level
24.	Online one day National Workshop on Health Awareness and Safety Issues	January 24, 2021	Ambala Cantt	Youth Red Cross Unit, S.D. College, Ambala Cantt in Collaboration with Indian Red Cross Society, Haryana	Youth Red Cross Unit, S.D. College, Ambala Cantt in Collaboration with Indian Red Cross Society, Haryana	National Level
25.	Online 1-Day Principal's Meet on Higher Resource Development in	March 25, 2021	Chandigarh	UGC-Human Resource Development Centre, Panjab University,	UGC-Human Resource Development Centre, Panjab University, Chandigarh	National Level

	Higher Education: Collaboration between HRDC and Institutional Heads			Chandigarh		
26.	National Level Webinar on “Principal: A Visionary at Work”	April 17, 2021	Ballabgarh, Haryana	In collaboration with Aggarwal College, Ballabgarh, Haryana	Teach Us: Let’s Talk Education (Season 2)	National Level
27.	National Level Webinar on “Towards a Goal-Driven Future”	April 24, 2021	Pune	SkillSlate Foundation, Pune and KnowEdge, Pune	Zovy Studios, Pune	National Level
28.	National Level Webinar on “The Exam System – Have we lost our Path?”	April 24, 2021	Thane, Maharashtra	In collaboration with Sheth NKTT College, Thane, Maharashtra	Teach Us: Let’s Talk Education (Season 2)	National Level
29.	National Level Webinar on National Education Policy 2020 and its Implementation in Higher Education	May 6, 2021	Jalandhar	In collaboration with GNA University, Jalandhar	Association of College Principals (AICP)	National Level
30.	International Conference on Light Matter Interaction (ICLMIN-2021)	May 19-21, 2021	Kalpakkam	Indira Gandhi Centre for Atomic Research (IGCAR) Kalpakkam	Indira Gandhi Centre for Atomic Research (IGCAR) Kalpakkam	International Level
31.	National Level Webinar on “Can India Produce World Class Researchers?”	May 22, 2021	Mumbai, Maharashtra	In collaboration with CVC College of Commerce and Arts, Mumbai, Maharashtra	Teach Us: Let’s Talk Education (Season 2)	National Level
32.	National Webinar on “Dealing with Stress during COVID 19 Pandemic through Yoga and Meditation”	May 22, 2021	Jagadhri	Maharaja Agrasen Mahavidyalaya, Jagadhri, Ambala	Youth Red Cross Club, NSS Unit	National Level
33..	National Webinar on “Alternative Resources of Energy”	June 05, 2021	Ludhiana	Gujranwala Guru Nanak Khalsa College, Civil Lines, Ludhiana	Department of Physics	National Level
34.	National Webinar on “Promoting Academic Integrity in Research and Professional Ethics”	June 11, 2021	Chandigarh	Sri Guru Gobind Singh College, Sector 26, Chandigarh	Office of Dean Research and Innovation Cell in Partnership with Turnitin South Asia	National Level
35.	International Debate on Examinations & Assessment – 2021 (IDEA 2021)	June 8-11, 2021	Pune	Council of Examiners, India and SkillSlate Foundation, Pune	Zovy Studios, Pune and IonIdea and Gniot Institute of Management, Utter Pradesh	International Level
36.	7-Day Faculty Development Program (FDP) on Research Methodology	June 6 - 12, 2021	Hoshiarpur	Department of Commerce and Management and IQAC, SD College, Hoshiarpur	in collaboration with GGSDS College Hariana, Moga College of Education for Girls, Moga, SGHRS College for Women Chabbewal, SDS College of Education for Women, Lopon and Babe Ke College of Education, Doudhar, Moga	National Level

37.	Journal Citation Reports Certification Series 2021	July 8 <sup>th</sup> 2021	Online	Clarivate Journal Citation Reports	Clarivate Journal Citation Reports	International Level
38.	Geographical Field Work during the Pandemic – Virtual Exploration of the Kosi Plain using Geofacets	July 27 <sup>th</sup> 2021	Online	Researcher Academy On Campus, Elsevier	Researcher Academy On Campus, Elsevier	International Level
39.	One day National Webinar on Cyber Security – Need of the Hour	August 14 <sup>th</sup> 2021	Online	Council of Exams – India and SkillSlate in Association with Marcraft	Council of Exams – India and SkillSlate in Association with Marcraft	National Level
40.	Varuksha Raksh Bandhan	August 22 <sup>nd</sup> , 2021		Mahatma Gandhi National Council of Rural Education	Department of Higher Education, Ministry of Education, Govt. of India	Natioonal Level
41.	International Level online conference on MXenes: Looking ahead to the next Ten Years	October 18 <sup>th</sup> , 2021	Online	Wiley VCH	Wiley VCH	International Level
42.	State Level Workshop on Quality Assessment & Accreditation Through NAAC	February 23 <sup>rd</sup> , 2022	Chandigarh	Department of Higher Education, Govt. of Punjab in collaboration with Rayat-Bahra University	Department of Higher Education, Govt. of Punjab in collaboration with Rayat-Bahra University	State Level
43.	National open house discussion on Rethinking & Reframing Form & Essence of Sanatan Dharma in 21 <sup>st</sup> Century	May 16 <sup>th</sup> , 2022	Online	Sanatan Dharma College, Ambala Cantt	S.D. Education Board, Delhi	National Level
44.	International Level one day webinar on Trends in Applied and Basic Polymer Research	July 6 <sup>th</sup> , 2022	Online	Wiley VCH	Wiley VCH	International Level
45.	International Level one day webinar on Optimize Combined WDS and EDS Analysis on the SEM	October 27 <sup>th</sup> , 2022	Online	Wiley Analytical Science	Oxford Instruments	International Level
46.	International Level one day webinar on Polymers in Therapeutic Applications	November 16 <sup>th</sup> , 2022	Online	Wiley VCH	Wiley VCH	International Level
47.	Two Days International Conference Beyond the Contemporary Sciences (BCS-2022)	November 18-19, 2022	Online	MCM DAV College for Women, Chandigarh	Amrita Vishwa Vidyapeetham, Mysuru	International Level

## REVIEWER

**Papers Reviewed (Publons) = 434**

- Journal of Electroanalytical Chemistry (Elsevier Science BV)
- Solid State Ionics (Elsevier Science BV)
- Ionics (Springer)



- Journal of Applied Polymer Science (Wiley VCH)
- Advances in Polymer Technology (Wiley VCH)
- Journal of Polymer Engineering (De Gruyter)
- Journal of Thermoplastic Composite Materials (Sage)
- Polymer Engineering and Science (Wiley)
- Phase Transitions (Taylor & Francis)
- Suranaree Journal of Science and Technology
- Surface Innovations (ICE Publishers)
- Engineering and Applied Science Research (Khon Kaen University Thailand),
- Polymer Composites Reinforced with Natural Fibers: Recent Advances
- Current Smart Materials (Bentham Science)
- Current Applied Polymer Science (Bentham Science)
- Journal on Materials Science (i-Manager's Publications)
- Journal on Future Engineering and Technology (i-Manager's Publications)
- Material Science Research India (Oriental Scientific Publishing Company)
- International Journal of Engineering, Science and Technology (African Journal)
- IOP Proceedings (Web of Science, Scopus indexed) of an International Conference on New Energy and Future Energy System, Energy Engineering and Environment Protection etc.

#### **MEMBER, TECHNICAL PROGRAMME COMMITTEES**

- 8<sup>th</sup> Spring World Conference on Engineering and Technology (SCET 2019) on 22-24 April 2019:  
[Spring International Conference on Chemical Engineering \(CEN-S\)](#)  
[Spring International Conference on Material Sciences and Technology \(MST-S\)](#)
- 3<sup>rd</sup> International Conference on Applied Mechanics, Electronic and Mechatronics Engineering (AMEME 2018) on November 25-26, 2018
- International Conference on Computer, Electronic and Mechanical Engineering (CEME 2018) on July 22-23, 2018
- 4<sup>th</sup> International Conference on Green Materials, and Environmental Engineering (GMEE 2018) on October 28-29, 2018
- 6<sup>th</sup> International Conference on Metallurgy, Technology and Materials (ICMTM 2018) on May 30-31, 2018
- International Conference on Novel Functional Materials (ICNFM 2018) on September 16-18, 2018
- International Conference on Electrical, Control and Mechanical Engineering (ICECME 2018) to be held on April 22-23, 2018
- 7<sup>th</sup> Global Conference on Materials Science and Engineering (ICMSE 2018) on November 1-4, 2018
- 5<sup>th</sup> International Conference on Machine Design and Manufacturing Engineering (ICDME 2018) on January 22-23, 2018
- International Conference on Mechanical Engineering and Materials (ICMEM 2018) on June 22-24, 2018
- 6<sup>th</sup> Annual International Conference on Material Science and Engineering (ICMSE 2018) on June 22-24, 2018
- International Conference on Power, Energy and Environmental Engineering (ICPEEE 2018)
- 4<sup>th</sup> Annual International Workshop on Materials Science and Engineering (IWMSE 2018) on May 18-20, 2018
- 7<sup>th</sup> Spring World Conference on Engineering and Technology (SCET 2018) on 23-25 April 2018:  
[Spring International Conference on Chemical Engineering \(CEN-S\)](#)  
[Spring International Conference on Material Sciences and Technology \(MST-S\)](#)
- 2<sup>nd</sup> International Conference on Innovative Material Science and Technology (IMST 2017) on October 20-22, 2017

- 5<sup>th</sup> Annual International Conference on Material Science and Engineering (ICMSE 2017) on October 20-22, 2017
- 5<sup>th</sup> Annual International Conference on Material Science and Environmental Engineering (ICMSEE 2017) December 15-17, 2017
- International Conference on Energy Engineering and Environmental Protection (ICEEEP 2017) December 15-17, 2017

**Research URLs:** ORCID ID: <http://orcid.org/0000-0002-1464-6123>

Researcher ID: <http://www.researcherid.com/rid/B-6563-2016>

SCOPUS ID: <http://www.scopus.com/authid/detail.url?authorId=57018404000>

Poblon ID: <https://publons.com/author/528427/dr-rajiv-kumar#profile>

Google Scholar: <https://scholar.google.co.in/citations?hl=en&user=PbYzSooAAAAJ>

#### **Links for Editorials Board Members:**

Frontiers in Nanotechnology <https://www.scopus.com/sourceid/21101077282>

<https://loop.frontiersin.org/people/1960685/overview>

Current Materials Science <https://benthamscience.com/journal/175/editorial-board>

#### **RESEARCH CREDENTIALS**

##### **Citation Index in International Databases:**

In Web of Science = 382

In Scopus = 391

In Google Scholar = 617

##### **h-Index in International Databases:**

In Web of Science = 11

In Scopus = 11

In Google Scholar = 14

##### **i10-Index in International Databases:**

In Web of Science = 11

In Scopus = 11

In Google Scholar = 17

#### **ORGANIZATIONAL CAPABILITIES**

- UGC sponsored National Seminar on “Economic Development in North-West Region of India: Challenges and Possibilities” has been organized on February 9, 2013 as Organizing Secretary
- One Day State Level Seminar on “Autonomy in Education” organized by the College in collaboration with Shiksha Sanskriti Utthan Nyas, Punjab has been organized on November 5, 2014 as Organizing Secretary
- ICSSR sponsored National Seminar on “Sikh Theology & Dalit Identity in Punjab” has been organized on March 7, 2015 as Coordinator
- ICSSR sponsored One Day National Seminar on “Sustainable Rural Livelihood – Opportunities and Challenges” held on March 7, 2020 as Co-Convener
- National Level Two Day Workshop on Research Methodology organized by Department of Mathematics, G.G.D.S.D. College, Haryana in collaboration with Shri J.J.T. University Jhunjhunu, Rajasthan on 9<sup>th</sup> – 10<sup>th</sup> October 2020
- National Level Webinar on "Free E resources for users with no access to Physical Libraries" organised by Smt. Saraswati Mishra Library G.G.D.S.D. College Haryana on October 29, 2020
- National Level Webinar on "National Education Policy - 2020" organised by Department of Political Science G.G.D.S.D. College Haryana on November 24, 2020

- National Level Webinar on 159<sup>th</sup> Birth Anniversary of Bharat Ratna Mahamana Pandit Madan Mohan Malviya Ji organized by Department of Political Science on December 25, 2020
- Organized 7-Day Faculty Development Program (FDP) on Research Methodology from June 6-12, 2021 by Department of Political Science in collaboration with by Department of Management, IQAC, SD College, Hoshiarpur, SGHRS College for Women, Chabbewal, Hoshiarpur, Moga College of Education for Girls, Moga, Babe Ke College of Education, Daudhar (Moga), Sant Darbara Singh College of Education for Women, Loapon
- Welcome note in 3-day Workshop on Way to Organic India organized by Department of Sciences and Biotechnology, SD College, Hoshiarpur from July 16-18, 2021
- FDP 3-day in collaboration with SD College, Hoshiarpur
- Organized one Day Workshop on Practical Aspects of Company Law on November 21, 2022 in collaboration with SD College, Hoshiarpur, SGHRS College for Women, Chabbewal, Hoshiarpur, Sant Darbara Singh College of Education for Women, Loapon

#### **SKILL DEVELOPMENT INITIATIVES IN THE INSTITUTION**

- Three Vocational Courses (B. Voc. In Banking and Financial Services, B. Voc. In Hardware and Networking and Advanced Diploma in Organic Farming) have been started in 2020 sponsored by National Skills Qualifications Framework, NSQF-UGC, New Delhi

Rajiv Kumar