- **1. Name of Faculty:** Dr. Pura Ram
- 2. Department: Physics
- 3. Designation: Assistant Professor



- 4. Age (on 13.12.2018): 39 Years 04 Months 04 days
- 5. Educational Qualification: Ph. D. (Energy Storage Materials), M.Sc. (Physics), JRF-NET, & Post Graduate Diploma in *"Radiological Safety Engineering"* with specialization in *"Nuclear Engineering"*
- 6. Ph.D. Thesis Title: "Rare earth doped LiMn₂O₄ cathodes for lithium ion battery"
  and guide Dr. Rakesh Kumar Sharma, Department of Chemistry, IIT Jodhpur.

Office, Dept. of Physics, University of Rajasthan,

- 7. Teaching Experience as on 13.12.2018: 5 Years
  - *UG*: 5 Years
  - *PG*: 5 Years

# 8. Correspondence Address (Official):

	Bapu Nagar, JLN marg, Jaipur-302004 (Raj.)
9. Phone/Mobile No.:	+91-75972 85316 (Mob), 0141-2711239 (Off.)
10. Email ID:	puraram@gmail.com; puraram@uniraj.ac.in
11. web-link:	https://sites.google.com/site/sesac2015/
12. Past Experience:	4 Years and 3 Months as Scientific officer-C (Health-
	Physicist) in NPCIL, a Unit of DAE, Govt. Of India.

13. Research/Scientific Experience: 11 Years

14. National Awards:	NET(2004), JRF-NET(2006), JRF-NET(2011);
	GATE-2004 (AIR-102), GATE-2011 (AIR-24 <sup>th</sup> );
	JEST-2011 (AIR-284)

## **15. List of Publication's:** Published (10), Communicated (01).

## International:

- Pura Ram, Harish Patel, Rahul Singhal, Ganpat Choudhary and Rakesh K Sharma, "On the study of mixing and drying on electrochemical performance of spinel LiMn<sub>2</sub>O<sub>4</sub> cathodes", J. Renewable and Sustainable Energy, 2018, (revised submitted manuscript JRSE: MS #RE-181792)
- 2. Bahuguna, G., Ram, P., Sharma, R. and Gupta, R., (2018), "An Organo-fluorine compound

Mixed Electrolyte for Ultrafast Electric Double Layer Supercapacitors", ChemElectroChem, Vol. 5, pp. 1-8.( doi:10.1002/celc.201800908).

- Ram,P., Gören,A., Ferdov,S., Silva,M. M., Choudhary,G., Singhal,R., Costa,C.M., Sharma,R.K., Lanceros-Méndez, S., (2018), "Improved electro-chemical performance of rare earth doped LiMn1.5Ni0.5O4 based composite cathodes for lithium-ion batteryApplications", Compos. Part B 139 (2018) 55–63 (https://doi.org/10.1016/j.compositesb.2017.11.054).
- Ram,P., Singhal,R., Choudhary,G., Sharma,R.K., (2017), "On the key role of Dy3+ in spinel LiMn2O4cathodes for Li-ion rechargeable Batteries", J. Electroanal. Chem. Vol. 802 pp. 94-99 (doi: 10.1016/j.jelechem.2017.08.052)
- Ram,P., Singhal, R., Sharma, R.K., (2017), "Preliminary study of dysprosium doped LiMn2O4 spinel cathode materials", Mat. Today Poc. Vol. 4, issue 9, pp. 9365-9370 (https://doi.org/10.1016/j.matpr.2017.06.186).
- 6. Ram,P., Gören,A., Ferdov,S., Silva,M.M., Choudhary,G., Singhal,R., Costa,C.M., Sharma,R.K.,Lanceros-Méndez S., (2017), "Synthesis and improved electrochemical performance of LiMn2–xGdxO4 based cathodes", Solid State Ion., Vol. 300, pp. 18–25.
- 7. H. Kumar, P. Ram & M. Singh, (2016), "Effect of rapid thermal annealing on optical properties of zinc sulphide thin films", Surface Engineering, pp.1-5 (doi: 10.1080/02670844.2016.1204130)
- 8. P. Ram, A. Goren, S. Ferdov, M. Silva, R. Singha, C. M. Costa, R. K. Sharma and S. lanceros-mendez, "Improved performance of rare earth doped LiMn2O4 cathodes for lithium-ion battery applications ", New J. Chem., 2016, DOI: 10.1039/C6NJ00198J.
- 9. Pura Ram et. al, "Assessment of household water use based on personal values, social influence and daily routines of people at Jodhpur Near Thar desert in India", Hydrology Current Res 2013, 4:1(http://dx.doi.org/10.4172/2157-7587.S1.009).
- 10. Pura Ram et al., "Synthesis, Physical and Impedance Spectroscopy of Tb(III) Doped LiMn<sub>2</sub>O<sub>4</sub> Cathode Material for Lithium Ion Rechargeable Batteries", Advanced Electrochemistry Vol. 2, 1–4, 2015.
- **11. Pura Ram** and Plappally AK et al., "Water Use and Related Costs at Households in Western and Northern Parts of India", Hydrol Current Res **2013**,4:3.
- ♦ Nationals: NIL

### 16. Papers in Conference Proceedings: NIL

## 17. Conference Paper Presentation (Conference/Symposium/ Workshops, etc.) :

- ♦ Oral:
  - Presented Oral paper on "Energy efficient Lee's Method for bad conductors" in 3<sup>rd</sup> National Hindi Vigyan Conference, 16-17 December 2016, CCT, Jaipur.
  - 2. Technical presentation in " International conference on Recent Trends in Engineering and

Material Sciences (ICEMS-2016) " organized by Jaipur National University, Jaipur during 17-19 March 2016 at Jaipur.

- Pura Ram, Rakesh K Sharma, Rahul Singhal ,"Synthesis, physical and impedance spectroscopy of Tb(III)doped LiMn2O4 cathode material for lithium ion rechargeable batteries", NCME-2014, 22-24 December 2014, Jaipur (abst ID -120).
- Watech-2013: OMICS International Exhibition and Conference on Water Technologies, Environment Technologies and Renewable Energy, 13-14 Feb, 2013 at Bombay Exhibition Centre, Mumbai, India.
- Poster:
  - Pura Ram, Rakesh K Sharma, Rahul Singhal, "Synthesis, physical and fourier transform infrared spectroscopy of Dy(III) and Tb(III) doped LiMn2O4 cathode material for lithium ion rechargeable batteries", NCME-2014, 22-24 December 2014, Jaipur (Poster presentation on 22-12-2014, abstrct ID-121).
  - Pura Ram, Mahesh Kumar, Vivek Dixit, Rakesh K Sharma , "Synthesis, physical and electrochemicalcharacterization of Gd(III) doped LiMn 2O4 cathode material for lithium ion rechargeable batteries", IUMRS-ICA 2013, 16-20 December 2013, Bangalore (Poster presentation on 19-12-2014, abstract IDABS - 64 – ICA).

#### 18. List of Conferences /Symposium/ Refresher Courses/Workshops attended:

- Organized a one day nano-science and technology awareness workshop "Pre-event Lecture Series, Road Show and Exhibition" for PG students on 29 October, 2018 at Department of Chemistry and IIT Jodhpur at Jaipur, (Raj.).
- Participated in one day nano-science and technology awareness workshop "Pre-event Lecture Series, Road Show and Exhibition" for UG-PG and school students on 15 October, 2018 at IIT Jodhpur, Karwar, Jodhpur (Raj.).
- **3.** STEM Teacher Training Workshop on Research Based pedagogical Tools (Level 1) organized by IISER, Pune on 28th September to 01st October, 2018 at Jaipur.
- **4.** 1<sup>st</sup> Refresher Course (221) on "Neno-Technology: Nanomaterials for future technology" conducted by UGC-HRDC, Saurashtra University, Rajkot (Gujarat) from 20/11/2017 to 10/12/2017.
- 5. 1<sup>st</sup> Orientation (101<sup>st</sup>) course at HRDC, University of Rajasthan, Jaipur, (Rajasthan) from 04-07-2017 to 30-07-2016.
- **6.** Participated in one day (15/02/2016) workshop on *"Social Relevance of Research"* organized by UGC-HRDC, University of Rajasthan, Jaipur on 15 February 2016, Jaipur.
- 7. India International Science Festival, 4-8<sup>th</sup>, December 2015, IIT Delhi.
- 8. National conference on Materials and their applications, 22-24th December, 2014, Jaipur.
- 9. IUMRS-ICA 2013, 16-20 December 2013, Bangalore.
- 10. FAEMMS-2013: International conference on "Functional and Energy Materials, Manufacturing &

Structures", 25-26 March 2013 at University of Hyderabad organized jointly by SOEST, Uni. Of Hyderabad, INAE and Royal academy of Engineering, United Kingdom.

**11.** International exhibition and conference on Water technology, Environmental Technology, and Renewable Energy, 13-14 February, 2013, Mumbai.

### **19. Master Dissertations:**

- Master of Science (Physics):
  - "Design and fabrication of constant discharge current set-up for characterizing rechargeable Li-ion batteries for Low power application using MATLAB simulation Package" by Ms Jyoti Sharma (Enroll No. ICG/2013/15748).
  - 2. "Radiation dose estimation in Thyroid Organ due to I-131 radio-isotope in single intake using MATLAB simulation Package" by Ms Renu Yadav (Enroll No. ICG/2013/16143).

#### 20. Membership of Technical Societies / Academic Bodies.

- 1. Indian Association of Physics Teachers(IAPT), Kanpur (10525, L7646), 2014.
- 2. Thermophysical society of India(TPSI), Jaipur (L-128), 2014.
- 3. Material Research Society of India(MRSI), Bangalore (Life Member), 2015.

### 21. Organized/member of Conferences /Symposium/ Workshops etc.:

- 1. Member of organizing INSPIRE-2016 (7-11 Sep, 2016) student Camp at CDPE, UOR, Jaipur.
- **2.** Workshop Coordinator **"Electronics for Every One"** under UGC-CPE program held during December 08-12, 2015 at University Maharani College, Jaipur.
- 3. Member of INSPIRE-2015 students camp organized at CDPE, UOR, Jaipur 3-07 October, 2015.
- 4. Member of INSPIRE-2014 students camp organized at CDPE, UOR, Jaipur 8-12 November, 2014.
- 5. National Science Day-2014 at Regional Science Centre, Jaipur, 26-28 February, 2014.
- 6. MRSI-2015 organizing committee memebr, February, 2015.

#### 22. Invited Lectures/Tutorials/Talks:

 Tutorial on "Coin cell Assembly for Lithium ion Rechargeable Batteries" was delivered in GIAN short course on "Synthesis and characterization of materials for energy storage Devices" at IIT Jodhpur, 12-16 December 2015.

## 23. Active role in Other activities:

- 1. NGPE Exam Coordinator for University Maharani College, Jaipur. The exam conducted by IAPT, Kanpur on Sunday in 21, January 2018
- 2. Panel member of Physics (2018-19) for IIT/Medical Coaching conducted by DST, Rajasthan State, Jaipur, Rajasthan.

- **3.** NGPE Exam Coordinator for University Maharani College, Jaipur. The exam conducted by IAPT, Kanpur on Sunday in 22, January **2017**
- **4.** Panel member of Physics (**2017-18**) for IIT/Medical Coaching conducted by DST, Rajasthan State, Jaipur, Rajasthan.
- 5. Panel member of Physics (2016-17) for IIT/Medical Coaching conducted by DST, Rajasthan State, Jaipur, Rajasthan.
- **6.** NGPE Exam Coordinator for University Maharani College, Jaipur. The exam conducted by IAPT, Kanpur on Sunday in 24, January **2016**
- NGPE Exam Coordinator for University Maharani College, Jaipur. The exam conducted by IAPT, Kanpur on Sunday in 25, January 2015
- 8. BOOKS CHAPTERS FOR CLASS VII WERE TRANSLATED FROM HINDI INTO ENGLISH AND PUBLISHED BY SIERT, UDAIPUR (RAJASTHAN).
- 9. BOOKS CHAPTERS FOR CLASS VIII WERE TRANSLATED FROM HINDI INTO ENGLISH AND PUBLISHED BY SIERT, UDAIPUR (RAJASTHAN).

Date: 31 December, 2018 Place: Jaipur

(Dr. Pura Ram)