C/o Mr. B. K. Das Sarma Plot No. 82, Flat C-804 Shivpriya Towers (C-Wing) Opp. Prasadnagar Bus Stop, Jaitala NAGPUR - 440 036. (R)+91-9370143433(M)+91-9673991974

# INDRANI B. DAS SARMA

#### AIM:

The goal of my life is to become an eminent teacher/ researcher in the field of Chemistry and use science for betterment of mankind.

The Essential Externets: 15 years (over negatiar) + or years (clock near basis) / nances				
Nature of Job	Subject	Level	Place	Period
Associate	Engineering	B. E	Jhulelal Institute of Technology,	02/01/2017-till
Professor	Chemistry		Nagpur	date
Lecturer / Assistant	Engineering	B. E	Jhulelal Institute of Technology,	21/07/2008-
Professor	Chemistry		Nagpur	01/01/2017
Contributory	Analytical &	Post	PGTD Chemistry; RTM Nagpur	2009-till date
Lecturer	Nuclear Chemistry	Graduate	University Nagpur	
Lecturer (Adhoc)	Engineering	B. E	Priyadarshini College of	23/07/2007-
	Chemistry		Engineering, Nagpur	12/04/2008
Contributory	Analytical	Post	PGTD Chemistry; RTM Nagpur	(2004-2007)
Lecturer	Chemistry	Graduate	University Nagpur	
Contributory	Analytical	Post	S.S.E.S, Science College, Nagpur	(2005-2007)
Lecturer	Chemistry &	Graduate		
	Spectroscopy			

## PROFESSIONAL EXPERIENCES: 13 years (UGC-Regular) + 04 years (Clock hour basis / Adhoc)

#### ACADEMIC QUALIFICATIONS: Ph.D (Chemistry)

Exam	Institution	Board/ University	Subject	Year	Percent
					age
Ph.D.	P.G.T.D Chemistry	R T M Nagpur	Radiation	December-2007	Awarded
		University	Chemistry <sup>1</sup>		
M.Sc.	P.G.T.D Chemistry	Nagpur University	Chemistry <sup>2</sup>	Summer-2002	65.40
B.Sc.	Hislop College,	Nagpur University	Chemistry, Botany,	Summer-2000	69.48
	Nagpur		Zoology		
H.S.S.C.	St. Josephs' Convent,	Maharashtra State	Physics, Chemistry,	March–1997	67.00
	Nagpur	Board.	Maths, Biology.		
S.S.C.	PRIA School, Dt.	Maharashtra State	General	March-1995	88.85
	Raigad	Board.			

(1**Title:** *Gamma radiolytic decomposition studies of some organic and inorganic compounds.* **Guide:** Dr. D. V. Parwate. Notification No. RTMNU/Exams./Ph.D./09/493)

(<sup>2</sup>Specialization: Analytical Chemistry. Elective: Applied Analytical Chemistry)

#### **OTHER QUALIFICATIONS:**

Examination	Institution	Year	Percentage
Certificate course in German	Dept of Linguistics, Foreign & Indian	2005	82.50
	Languages, RTM Nagpur University		(1 <sup>st</sup> Merit)
Certificates in C, C++, Linux.	NIIT, Nagpur	2002	Participation
			Certificates
Diploma in Business	All India Institute of Management Studies,	2001	70.00
Management.	Chennai		
Diploma in Human Resources	All India Institute of Management Studies,	2001	63.75
Development.	Chennai		
Diploma in Microsoft Office.	Datapro Infoworld Ltd	2000	70.00

## **PROJECTS HANDLED**

Program Co-ordinator for Department of Science & Technology sponsored INSPIRE Internship Science Camp-2017 at Jhulelal Institute of Technology, Nagpur during January 16-20, 2017 (Sanction Letter No. DST/INSPIRE/01/2016/000901).

# **PORTFOLIOS HANDLED (College Level):**

- 1. Core committee member NAAC documentation and uploading since 2017.
- 2. Research & Development Cell Co-ordinator at college level till 2019.
- 3. Organizing secretary of International Conference on Science and Engineering for Sustainable Development (ICSESD 2017) held at Jhulelal Institute of Technology on May 27, 2017
- 4. Officer-In-charge for RTM Nagpur University Winter 2009 Examination at Jhulelal Institute of Technology (Centre: 922).
- 5. Co-ordinator / committee member for College Prospectus of Jhulelal Institute of Technology for the session 2010-11, 2011-12, 2013-14 and 2014-15.
- 6. Committee member for Internal Marks compilation for B.E. First Year, First and Second Semester.
- 7. Committee member for AICTE documentation and uploading.
- 8. Guided students for presentations at various intercollegiate competitions.
- 9. Co-incharge for BE First Year for the sessions 2014-15 and 2015-16.

## **EVENTS ORGANIZED (Online)**

1) Coordinator of *One-Week Online FDP on "Overcoming the Challenges in Adapting Online Technology in Teaching Learning"* organized by Department of Applied Sciences & Humanities, Jhulelal Institute of Technology in association with Indian Society for Technical Education (ISTE), Society for Technologically Advanced Materials of India (STAMI), upGrad and Edusaksham (an e-learning Company) held during **May 6-11, 2020**. (No. of participants: 1055)

2) Organizing Secretary of *International Web Conference on Science, Engineering & Technology (IWCSET-2020)* organized by Jhulelal Institute in association with Indian Society for Technical Education (ISTE) and Society for Technologically Advanced Materials of India (STAMI) held during **May 15-16, 2020** (No. of Participants: 3220 from 18 different countries).

3) Technical Coordinator of *e-Quiz on COVID Awareness* organized by Department of Applied Sciences & Humanities, Jhulelal Institute of Technology in association with Raman Science Centre, Nagpur, Society for Technologically Advanced Materials of India (STAMI) and Nagpur District Chemists & Druggists Association (NDCDA) during **June 01-08**, **2020**.

4) Convener of *e-Quiz on Discoveries & Nobel Prizes* organized by Department of Applied Sciences & Humanities, Jhulelal Institute of Technology in association with Raman Science Centre & Planetarium, Nagpur and Society for Technologically Advanced Materials of India (STAMI) during **June 03-09, 2020**.

5) Organizing Committee Member at International Web Symposium on *"Biomedical Instrumentation: A Boon to Healthcare Industry - 2020" (BIBHI -2020)* organized by Shri Mathuradas Mohota College of Science, Nagpur in association with STAMI held on **June 26-27, 2020**.

6) Co-ordinator of **One-Week Online "Administrative Training Program" for Office Staff (ATP-OS-2020)** organized by Jhulelal Institute of Technology in association with Rashtrasant Tukadoji Maharaj Nagpur University during **June 27-July 03, 2020**.

7) Organizing Secretary of *National Webinar on Pandemic Perceptiveness in the Post Covid-19 World* organized by Jhulelal Institute of Technology in association with Indian Society of Analytical Scientists (ISAS), Nagpur Chapter on **July 04, 2020**.

8) Coordinator of *Webinar on Human in Engineers in post COVID* organized by Consultancy Cell, Jhulelal Institute of Technology, Nagpur on August 25, 2020.

9) Coordinator of National Webinar on Attitude: Key to Successful Life organized by Department of Applied Sciences & Humanities, Jhulelal Institute of Technology and Department of Physics, Dr. Ambedkar College, Nagpur, in association with Society for Technologically Advanced Materials of India (STAMI) on **March 21, 2021**.

10) Convener of *Online Faculty Orientation Programme of B.E. First Year Semester-II New Syllabus: Applied Chemistry* organized by Department of Applied Sciences & Humanities, Jhulelal Institute of Technology in association with Rashtrasant Tukadoji Maharaj Nagpur University on **June 01, 2021**.

# **RESEARCH EXPERIENCE**

- Worked at Research Center, Department of Chemistry, East West Institute of Technology, Bengaluru during June 04-12, 2018.
- Registered Ph.D guide (Chemistry) for Rashtrasant Tukadoji Maharaj Nagpur University, Letter No. Ph.D. (Cell)/RRC/Guide/3605B/644 dated 12/09/2008.

Name of Student	Торіс	Status
Ms. Nutan Pardhi	Gamma radiolytic decomposition of transition metal nitrates	M.Phil

# FELLOWSHIP / GRANTS RECEIVED: 05

- 1 Department of Science & Technology sponsored INSPIRE Internship Science Camp-2017 at Jhulelal Institute of Technology, Nagpur during January 16-20, 2017 (Sanction Letter No. DST/INSPIRE/01/2016/000901)
- 2 Fellowship of 1000 Euros towards attending 11<sup>th</sup> International School of Radiation Damage and Protection. Organized by *Ettore Majorana Foundation and Centre for Scientific Culture (EMFCSC)*, *Erice, Italy* during May 13–21, 2009.
- 3 Travel and Conference assistance grants for
  - i) 11<sup>th</sup> International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2013) held at **Rhodes, Greece** during **September 23-26, 2013**
  - ii) 12<sup>th</sup> International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2014) held at **Rhodes, Greece** during **September 22-28, 2014**.
  - iii) 2016 Sustainable Industrial Processing Summit held at **Sanya, Hainan Island, China** during **November** 6-10, 2016.

# INTELLECTUAL PROPERTY RIGHTS

# Copyrights

- 1. 'Laboratory Manual of Material Chemistry' Indrani Das Sarma, Gaurav Bhosekar, Registration No. L-84839/2019.
- 2. *'Lecture Notes of Engineering Chemistry'* **Indrani Das Sarma**, Dilip V. Parwate, Gaurav Bhosekar, Registration No. L-88053/2019.

## LECTURES / TALKS: 20

- 1. 'Green Chemistry as per BE First Semester syllabus' at SVSS College of Engineering, Nagpur on October 16, 2012.
- 2. Santilli's New Fuels as Sources of Clean Combustion at Workshops on Santilli's Iso, Geno and Hyper Mathematics for Matter and Its Isodual for Antimatter under 11<sup>th</sup> International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2013) held at Rhodes, Greece during **September 23-26, 2013**.
- 3. *Santilli's New Fuels as Sources of Clean Combustion-I* at 2013 International Workshop on Hadronic Chemistry, Mathematics and Physics at Department of Chemistry, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur during **October 21-26, 2013**.
- Santilli's New Fuels as Sources of Clean Combustion-II at 2013 International Workshop on Hadronic Chemistry, Mathematics and Physics at Department of Chemistry, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur during October 21-26, 2013.
- 5. *Hadronic Nuclear Energy: An Approach Towards Green Energy* at 12<sup>th</sup> International Conference on Numerical Analysis and Applied Mathematics (ICNAAM 2014) held at Rhodes, Greece during **September 22-28, 2014**.
- 6. *Nuclear Energy: Hadronic Mechanics Approach* at 2014 Second International Workshop on Hadronic Chemistry, Mathematics and Physics at Department of Chemistry, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur during **November 24-29, 2014.**
- 7. *Thermoanalytical Techniques* at Refresher Course in Chemistry sponsored by University Grants Commission and organized by UGC-Academic Staff College, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur on **March 4, 2015.**

- 8. *Radiation Detectors* at Refresher Course in Chemistry sponsored by University Grants Commission and organized by UGC-Academic Staff College, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur on **March 11, 2015.**
- 9. *Santilli's Non-nuclear and Nuclear Energies: A Source for Sustainable and Green Energy* at 2016 Sustainable Industrial Processing Summit held at Sanya, Hainan Island, China during **November 6-10, 2016**.
- 10. *Research Awareness on Nuclear Chemistry* at DST sponsored INSPIRE Internship Science Camp held at Diamond College of Commerce & Science, Nagpur on **December 20, 2017**.
- 11. *Radiological and Nuclear emergencies-related risks, steps for prevention and protection*, at Refresher Course in Disaster Management (SWAYAM MOOC portal) by Government of India, Ministry of Human Resource Development and AICTE SWAYAM, **2018**.
- 12. *Impact of Climate Change, Causes for Global Warming & Carbon Foot Print Reduction,* at Refresher Course in Disaster Management (SWAYAM MOOC portal) by Government of India, Ministry of Human Resource Development and AICTE SWAYAM, **2018**.
- 13. *Environmental Disaster & Protection,* at Refresher Course in Disaster Management (SWAYAM MOOC portal) by Government of India, Ministry of Human Resource Development and AICTE SWAYAM, **2018**.
- How to create animations at Refresher Course in ICT Applications and Soft Skills organized by UGC-Human Resource Development Centre, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur on January 16, 2019.
- 15. *Atomic Absorption Spectroscopy* for M.Sc Semester-II at Jankidevi Bajaj College of Science, Wardha on **March 8, 2019.**
- 16. *Exploring Google Tools for Online Teaching & Learning'* at Webinar organized by Society for Technologically Advanced Materials of India (STAMI) on **June 22, 2020.**
- 17. *Exploring Google Tools* at One Week Online "Administrative Training Program" for Office Staff organized by Jhulelal Institute of Technology in association with Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur held during **June 27- July 3, 2020**.
- 18. *Comparison of various Nuclear Fusion Reactors ICNS* at International Teleconference on Einstein's Argument that "Quantum Mechanics is Not a Complete Theory" during **September 1-5, 2020**.
- 19.*Alternate sources of energy* at "online orientation program of B. E. First Year New Syllabus of Energy and Environment" organized by IQAC-RCOEM, Chemistry Department, RCOEM and RTMNU on **February6**, 2021.
- 20.*Role of Science and Technology in Sustainable Development* at Science Day Celebration organized by Government Polytechnic, Nagpur on **February 28, 2021**.

# LIST OF PUBLICATIONS: 16 [Total Impact Factor: 3.845]

- 1. *Gamma radiolytic decomposition of KNO*<sup>3</sup> *in presence of aluminium, and its compounds*; **Indrani Das Sarma**, D.V. Parwate; Asian Journal of Chemistry, vol. 18(1); **2006**; pp:103–108.
- Protection of Gentian violet on gamma irradiation in presence of certain additives; D.V. Parwate, Indrani Das Sarma; Asian Journal of Chemistry, vol. 18(1); 2006; pp: 621–624.
- 3. Preliminary feasibility study of congo red dye as a secondary dosimeter; D.V. Parwate, I. Das Sarma, R.J. Batra; Radiation Measurements, vol. 42(9); October 2007; pp: 1527–1529. (Impact factor: 1.512; Citations: 25)
- 4. *Plausible applicability of aqueous congo red dye systems as secondary gamma ray dosimeter;* **I. Das Sarma**, D.V. Parwate; E-Journal of Chemistry, vol. 5(3); **July 2008**; pp: 572 576. (**Impact Factor: 1.790, Citations: 02**)
- 5. Effect of metal powders on γ-ray induced decomposition of 2KNO<sub>3</sub>.La(NO<sub>3</sub>)<sub>3</sub>.2H<sub>2</sub>O; I.B. Das Sarma, D.V. Parwate, B. Singh, R.J. Batra; Radiation Effects and Defects in Solids, vol. 164 (11); November 2009; pp: 665 672. (Impact factor: 0.640)
- Radiation sterilization of fluoroquinolones in solid state: Investigation of effect of gamma radiation and electron beam; Babita K. Singh, Dilip V. Parwate, Indrani B. Dassarma, Sudhir K. Shukla; Applied Radiation and Isotopes; vol. 68 (9); September 2010; pp: 1627-1635. (Impact factor: 1.270; Citations: 09)
- Study on gamma and electron beam sterilization of third generation cephalosporins cefdinir and cefixime in solid state; Babita K. Singh, Dilip V. Parwate, Indrani B. Dassarma, Sudhir K. Shukla; Radiation Physics and Chemistry; vol. 79 (10); October 2010; pp: 1079-1087. (Impact factor: 2.226; Citations: 08)
- Radiolytic transformation of iodine to iodine monochloride in chlorinated organic solvents; S.M. Kale, I.B. Das Sarma, D.V. Parwate, R.J. Batra; International Journal of Chemical Science and Technology; Vol. 1 (4); October 2011; pp: 183-190.
- 9. *Gamma Radiolytic Decomposition of acidic stannous chloride systems;* S.M. Kale, **I.B. Das Sarma**, D.V. Parwate, R.J. Batra; International Journal of Knowledge Engineering; vol. 3 (1); **March 2012**; pp: 36-37. **(ICV: 4.5)**

- 10.*Santilli's New Fuels as Sources of Clean Combustion*; Indrani B. Das Sarma; Hadronic Journal; vol. 36 (5), October 2013; pp: 507-528.
- 11.A Review of Hadronic Chemistry and its Application in the Development of New Magnecular Fuel; V. M. Tangde,
  I. B. Das Sarma and S. G. Rawat; International Journal of Researches in Biosciences, Agriculture and Technology; vol. 1 (2); 2014, pp. 1231-1242.
- 12.Separation of Zn(II) and Cd(II) ions from Synthetic Waste Water by Adsorption on Activated Carbon Derived from Tridax procumbens; N.H. Pathode, D.V. Parwate and I. Das Sarma; Analytical Chemistry Letters, vol. 4 (2), 2014, pp. 113-122. (Impact Factor: 1.260, Citations: 02)
- 13.*Hadronic Nuclear Energy: An Approach Towards Green Energy;* Indrani B. Das Sarma; American Journal of Modern Physics, vol. 5(2-1), **2016**, pp. 119-130.
- 14.Gamma Radiolytic Remediation of Aqueous Solutions of Malachite Green Dye; A. P. Fartode, D.V. Parwate, I. B. Das Sarma; International Journal of Advanced Engineering, Management and Science (IJAEMS); Special Issue-1; 2017; pp. 15-18. (Impact factor: 4.121)
- 15.Nuclear Power in India: Viability of Thorium fuel utilization; I. B. Das Sarma, A. P. Sahasrabhojanee; International Journal of Advanced Engineering, Management and Science (IJAEMS); Special Issue-1; 2017; pp.110-114. (Impact factor: 4.121)
- 16.Experimental Investigation of Radiostability of Polyvinyl Chloride for Suitability in High Energy Applications; P.D. Dahake, D. V. Parwate, I. B. Das Sarma; Journal of Seybold Report; vol. 15, issue 7; 2020, pp. 595-601. ISSN:1533-9211.

# **Conference (Proceeding) papers: 05**

- Effect of Gamma Radiation on Antibiotics: An Approach towards Radiosterilization; D.V. Parwate, I. Das Sarma, K.N.K. Rayalu; 8<sup>th</sup> Biennial Symposium on Nuclear & Radiochemistry; MS University, Baroda; Feb-2007; p-513. (Conference paper)
- A study of colour parameters on gamma irradiated dye impregnated paper strips; I.B. Das Sarma, B.K. Singh, D.V. Parwate; DAE-BRNS 11<sup>th</sup> Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2012); Bhabha Atomic Research Centre, Mumbai; 4-7 January 2012. (Conference paper)
- 3. Santilli's New Fuels as Sources of Clean Combustion; Indrani B. Das Sarma; AIP Conf. Proc. 1558, 680, 2013; http://dx.doi.org/10.1063/1.4825583 (Citations: 07)
- 4. *Hadronic Nuclear Energy: An Approach Towards Green Energy*; **Indrani B. Das Sarma**; AIP Conference Proceedings 1648, 510008 (2015) [ISSN: 0094-243X, E-ISSN: 1551-7616]. (Citations: 04)
- Santilli's Non-nuclear and Nuclear Energies : A Source for Sustainable and Green Energy; Indrani Das Sarma; Sustainable Industrial Processing Summit SIPS 2016 Volume 4: Santilli Intl. Symp. / Mathematics Applications. Volume 4; Montreal(Canada): FLOGEN Star Outreach. In: Kongoli F, Gaines G, Georgiev S, Bhalekar A, editors 2016. p. 207-220. [ISBN: 978-1-987820-42-3; ISSN: 2291-1227]

## **LIST OF PRESENTATIONS: 15**

- Gamma radiolytic decomposition of KNO<sub>3</sub> in presence of aluminium, and its compounds; Indrani Das Sarma, D.V. Parwate; 3<sup>rd</sup> National Symposium & Conference on Solid State Chemistry & Allied Areas; IIT Delhi; December-2003; p-45
- 2. *A study of the congo red dye as a Secondary Dosimeter*; D. V. Parwate, **Indrani Das Sarma**; 4<sup>th</sup> Nat. Symposium & Conference on Solid State Chemistry & Allied Areas; Goa University, Goa; **December-2006**; p–115.
- Gamma radiolytic decomposition of double nitrate in presence of various metal powders; D.V. Parwate, K.N.K. Rayalu, Indrani Das Sarma; 4<sup>th</sup> National Symposium & Conference on Solid State Chemistry & Allied Areas; Goa University, Goa; December-2006; IP-7
- Semi-quantitative estimation of gamma radiation dose using certain dye strips; I. Das Sarma, D.V. Parwate; 5<sup>th</sup> National Symposium & Conference on Solid State Chemistry & Allied Areas; RTM Nagpur University, Nagpur; November-2007; p-117.
- Gamma radiolysis of bromophenol red and bromocresol purple in presence of lanthanum series oxide in aqueous solution; K. Bhaisare, I. Das Sarma, D.V. Parwate; 6<sup>th</sup> Nat. Sym. & Conf. on Solid State Chemistry & Allied Areas; Vellore Institute of Technology, Vellore; 18-21 November 2009; p-70.
- Effect of metal powders as heterophase impurity on gamma radiolysis of certain transition metal nitrates; N. Pardhi, I.B. Das Sarma, D.V. Parwate; National Conference of Chemistry for the protection of Environment; Department of Chemistry, Priyadarshini Institute of Engineering and Technology, Nagpur; 18-19 December 2009; p–51.

- Thorium based nuclear fuel; I.B. Das Sarma, A.P. Sahasrabhojanee; National Conference & Workshop on "Direct Use of Renewable Energy & Energy Saving Systems in Industries & Homes"; K. D. K. College of Engineering, Nagpur; 21-22 October 2011.
- 8. *A study of colour parameters on gamma irradiated dye impregnated paper strips*; **I.B. Das Sarma**, B.K. Singh, D.V. Parwate; DAE-BRNS 11<sup>th</sup> Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2012); Bhabha Atomic Research Centre, Mumbai; **4-7 January 2012**.
- Gamma Radiolytic Decomposition of acidic stannous chloride systems; S.M. Kale, I.B. Das Sarma, D.V. Parwate, R.J. Batra; in AICTE sponsored in association with ISTE National Conference on Advanced Materials for Engineering & Technology (NCAMET-2012); organized by Priyadarshini College of Engineering, Nagpur; March 15-16, 2012.
- Effect of gamma radiation on gentian violet impregnated paper strips; I. B. Das Sarma and D. V. Parwate; International Conference on Global Opportunities for Latest Developments in Chemistry and Technology (GOLD-CT-2014) organized by School of Chemical Sciences, North Maharashtra University, Jalgaon during February 06-08, 2014.
- 11. *Influence of metal and alloy powders on decomposition of potassium lanthanum double nitrate induced by gamma rays*; S. A. Bhange, D. V. Parwate and **I Das Sarma**; International Conference on Global Opportunities for Latest Developments in Chemistry and Technology (GOLD-CT-2014) organized by School of Chemical Sciences, North Maharashtra University, Jalgaon during **February 06-08, 2014**.
- Preliminary applicability of congo red and brilliant yellow dye impregnated paper strips in gamma dose measurement; I.B. Das Sarma, D.V. Parwate, K.D. Bhaisare; International Conference on Futuristic Materials and Emerging Trends in Forensic and Life Sciences (ICFM-2015); RTM Nagpur University, Nagpur; 5-7 February 2015.
- Evaluation of optical and colorimetric properties as an assessment tool for paper gamma dosimeters; I.B. Das Sarma, D.V. Parwate; International Conference on Science, Engineering and Technology (ICSET-2019); Tashkent, Uzbekistan; 30 May -1 June 2019.
- 14. Experimental Investigation of Radiostability of Polyvinyl Chloride for Suitability in High Energy Applications; P. D. Dahake, D. V. Parwate, I. B. Das Sarma; International Conference on Advances in Physical, Chemical and Mathematical Sciences (ICAPCM2020) organized by Department of Physics, Chemistry, Mathematics, Statistics, Computer Science & Laxminarayan Institute of Technology Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur during 13-16 February 2020.
- 15. *An Overview of Various Radiation Dosimeters and their Application;* **I. B. Das Sarma**, D. V. Parwate, D. S. Bhowmick; International Web Conference on Recent Advances in Science (IWCRAS 2020) organized by Department of Physics and IQAC, Don Bosco College, Tura, Meghalaya during **30-31 July 2020**.

# LIST OF CONFERENCES ATTENDED: 20

- Gamma radiolytic decomposition of KNO<sub>3</sub> in presence of aluminium, and its compounds; Indrani Das Sarma, D.V. Parwate; 3<sup>rd</sup> National Symposium & Conference on Solid State Chemistry & Allied Areas; IIT Delhi; December-2003; p-45
- 2. National Seminar on Advanced Materials (NSAM-2004) organized by Kamla Nehru Mahavidyalay, Nagpur on **February 01, 2004.**
- 3. UGC sponsored Seminar on Significant Trends of Research in Chemistry organized by Department of Chemistry, Nagpur University, Nagpur on **February 29, 2004.**
- 4. A study of the congo red dye as a Secondary Dosimeter; D. V. Parwate, Indrani Das Sarma; & Gamma radiolytic decomposition of double nitrate in presence of various metal powders; D.V. Parwate, K.N.K. Rayalu, Indrani Das Sarma; 4<sup>th</sup> National Symposium & Conference on Solid State Chemistry & Allied Areas; Goa University, Goa; December-2006; pp 41 & IP-7
- 5. DAE-BRNS Meet on Current Trends and Future Perspectives of Neutron Activation Analysis (CFNAA 2006) organized by Radiochemistry Division, BARC, Mumbai on **November 16-17, 2006**.
- 6. National Seminar on Advanced Materials on the eve of superannuation of Prof N S Bhave (NSAMNSB-2007) organized by Department of Chemistry, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur on **February 12, 2007.**
- Semi-quantitative estimation of gamma radiation dose using certain dye strips; I. Das Sarma, D.V. Parwate; 5<sup>th</sup> National Symposium & Conference on Solid State Chemistry & Allied Areas; RTM Nagpur University, Nagpur; November-2007; p-117.
- 8. National Seminar on Industrial Ecology (ECO+) organized by Shri Mathuradas Mohota College of Science, Nagpur on **August 08, 2008.**

- 3<sup>rd</sup> National Conference on thermodynamics of Chemical and Biological Systems (NCTCBS-2008) organized by Department of Chemistry, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur on October 16-17, 2008.
- Gamma radiolysis of bromophenol red and bromocresol purple in presence of lanthanum series oxide in aqueous solution; K. Bhaisare, I. Das Sarma, D.V. Parwate; 6<sup>th</sup> Nat. Sym. & Conf. on Solid State Chemistry & Allied Areas; Vellore Institute of Technology, Vellore; 18-21 November 2009; p–70.
- Effect of metal powders as heterophase impurity on gamma radiolysis of certain transition metal nitrates; N. Pardhi, I.B. Das Sarma, D.V. Parwate; National Conference of Chemistry for the protection of Environment; Department of Chemistry, Priyadarshini Institute of Engineering and Technology, Nagpur; 18-19 December 2009; p–51.
- 12. BRNS (DAE), DST, UGC and RSC sponsored International Conference on Chemistry for Mankind: Innovative Ideas in Life Sciences (ICCM-2011) jointly organized by Department of Chemistry, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur; Department of Chemistry, Institute of Science, Nagpur; Department of Chemistry & Biochemistry, St Francis de Sales' College, Nagpur under auspices of Indian Society of Chemists and Biologists, Lucknow on **February 09-11, 2011**.
- 13. *Thorium based nuclear fuel*; **I.B. Das Sarma**, A.P. Sahasrabhojanee; National Conference & Workshop on "Direct Use of Renewable Energy & Energy Saving Systems in Industries & Homes"; K. D. K. College of Engineering, Nagpur; **21-22 October 2011**.
- 14. National Seminar on Synthesis and Characterization of Therpeutic Compounds (Drugs) by using Modern Techniques organized by Dhote Bandhu Science College, Gondia on **January 03, 2012.**
- 15. *A study of colour parameters on gamma irradiated dye impregnated paper strips*; **I.B. Das Sarma**, B.K. Singh, D.V. Parwate; DAE-BRNS 11<sup>th</sup> Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2012); Bhabha Atomic Research Centre, Mumbai; **4-7 January 2012**.
- Gamma Radiolytic Decomposition of acidic stannous chloride systems; S.M. Kale, I.B. Das Sarma, D.V. Parwate, R.J. Batra; in AICTE sponsored in association with ISTE National Conference on Advanced Materials for Engineering & Technology (NCAMET-2012); organized by Priyadarshini College of Engineering, Nagpur; March 15-16, 2012.
- 17. Symposium in Advancing Chemical Sciences as a part of RSC-IYC (International Year of Chemistry) Challenging event. Organized at Department of Chemistry, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur on **September 01, 2012**.
- International Conference on Global Opportunities for Latest Developments in Chemistry and Technology (GOLD-CT-2014) organized by School of Chemical Sciences, North Maharashtra University, Jalgaon during February 06-08, 2014.
- Preliminary applicability of congo red and brilliant yellow dye impregnated paper strips in gamma dose measurement; I.B. Das Sarma, D.V. Parwate, K.D. Bhaisare; International Conference on Futuristic Materials and Emerging Trends in Forensic and Life Sciences (ICFM-2015); RTM Nagpur University, Nagpur; 5-7 February 2015.
- 20. Annual Young Scholars' Conference (AYSC-2018). Organized by Internal Quality Assurance Cell (IQAC), Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur on **February 23-24, 2018**.

# LIST OF BOOKS: 06

 Guidance material in Applied Chemistry for BE First Year students of Rashtrasant Tukadoji Maharaj Nagpur University, Solved Question Bank Applied Chemistry of Rashtrasant Tukadoji Maharaj Nagpur University for First Year BE (1<sup>st</sup> & 2<sup>nd</sup> Editions)

Authors: D.V. Parwate & I.B. Das Sarma Published by: Gayatri Prakashan, Nagpur

2. Guidance material in Engineering Chemistry for BE First Semester students of Rashtrasant Tukadoji Maharaj Nagpur University, Solved Question Bank Engineering Chemistry of Rashtrasant Tukadoji Maharaj Nagpur University for First Semester BE

Authors: D.V. Parwate & I.B. Das Sarma Published by: Gayatri Prakashan, Nagpur

3. Guidance material in Material Chemistry for BE Second Semester students of Rashtrasant Tukadoji Maharaj Nagpur University, Solved Question Bank Engineering Chemistry of Rashtrasant Tukadoji Maharaj Nagpur University for Second Semester BE

Authors: D.V. Parwate & I.B. Das Sarma Published by: Gayatri Prakashan, Nagpur

 Guidance material in Applied Chemistry for BE First Year students of Gondwana University, Solved Question Bank Engineering Chemistry of Gondwana University for First Year BE Authors: D.V. Parwate & I.B. Das Sarma Published by: Gayatri Prakashan, Nagpur

# 5. Textbook on *Energy and Environment*

Authors: A. V. Bharati, S. A. Shrivastava, S. G. Rawat, **I. B. Das Sarma**, J. N. Thakre & K. M. Khandarkar Published by: Das Ganu Prakashan, Nagpur (2021) ISBN 978-93-84336-66-0

 Applied Chemistry Authors: A. V. Bharati, S. A. Shrivastava, S. G. Rawat, I. B. Das Sarma, J. N. Thakre & K. M. Khandarkar Published by: Das Ganu Prakashan, Nagpur (2021) ISBN 978-93-84330-67-7

# WORKSHOPS / REFRESHER COURSE / STTP / FDP ATTENDED: 21

- 1. Workshop on Radiation and Photochemistry. Organized jointly by Indian Society of Radiation and Photochemical Sciences, Radiation and Photochemistry Division, Bhabha Atomic Research Centre, Mumbai during January 2–4, 2006.
- 2. Workshop on Latex. Organized by *Department of Mathematics, Rashtrasant Tukadoji Maharaj Nagpur* University, Nagpur during March 5-7, 2007.
- 3. 64<sup>th</sup> BRNS-IANCAS National Workshop on Radiochemistry and Applications of Radioisotopes. Organized jointly by *Rashtrasant Tukadoji Maharaj Nagpur University* and *Indian Association by Nuclear Chemists and Allied Scientists (IANCAS)*, *Nagpur* during July 2–10, 2007.
- 4. School on Trace Analysis (TRACE–07). Organized by *Centre for Advanced Research and Education (CARE), Saha Institute of Nuclear Physics, Kolkata* during October 3–13, 2007.
- 5. 11<sup>th</sup> International School of Radiation Damage and Protection. Organized by *Ettore Majorana Foundation and Centre for Scientific Culture (EMFCSC), Erice, Italy* during May 13–21, 2009.
- 6. Refresher Course on Contemporary Non-equilibrium Thermodynamics and Statistical Mechanics. Sponsored by *Indian Academy of Sciences, Bangalore; Indian National Science Academy, New Delhi* and *The National Academy of Sciences, India, Allahabad* and organized by *Department of Chemistry, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur* during October 20-November 2, 2010.
- 7. Workshop on Curriculum Development B.E. First Year: Applied Chemistry syllabus of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. Organized at *Rajiv Gandhi College of Engineering, Research & Technology, Chandrapur* on **September 10, 2011.**
- 8. Training Course on Science Communication through Print Media. Organized by *National Institute of Science Communication and Information Resources (NISCAIR)*, *New Delhi* during February 6-10, 2012.
- 9. National Workshop on Nanoscience and Materials Characterizations. Organized by *Indian Association of Solid State Chemists and Allied Scientists (ISCAS)*, *Jammu* on June 9-15, 2012.
- 10. Workshop on Curriculum Development B.E. First Semester: Engineering Chemistry syllabus of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. Organized at *Guru Nanak Institute of Engineering and Technology*, *Nagpur* on August 27, 2012.
- 11. Workshop on Curriculum Development B.E. Second Semester: Material Chemistry syllabus of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. Organized at *Anjuman College of Engineering and Technology*, *Nagpur* on **December 27, 2012**.
- 12. One day Motivational Workshop on Santilli's New Mathematics for 21<sup>st</sup> Century Sciences, sponsored by The R M Santilli Foundation, Florida, USA. Organized at *Smt Bhagwati Chaturvedi College of Engineering, Nagpur* on **April 06, 2013**.
- 13. 2013 International Workshop on Hadronic Chemistry, Mathematics and Physics, sponsored by The R M Santilli Foundation, Florida, USA. Organized at *Department of Chemistry, Rashtrasant Tukadoji Maharaj Nagpur* University, Nagpur on October 21-26, 2013.
- 14. Workshop on Curriculum Development B.E. First and Second Semesters: Engineering Chemistry and Material Chemistry syllabus of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. Organized at *Anjuman College of Engineering and Technology, Nagpur* on April 22, 2015.
- 15. Two-weeks ISTE STTP on Environmental Studies, conducted by Indian Institute of Technology, Bombay under the National Mission on Education through ICT (MHRD). Organized at *Priyadarshini College of Engineering*, *Nagpur* (RC ID 1280) on **June 02-12, 2015**.
- 16. International Professional Development Course: Human Factor in Nuclear Security. Organized by Amity University, Uttar Pradesh in partnership with King's College London at *Amity University, Noida* during May 30-June 3, 2016.
- 17. Workshop on Intellectual Property Rights (IPR). Organized by *Rashtriya Uchchatar Shiksha Abhiyan* (*RUSA*), *Maharashtra* in collaboration with *Rajiv Gandhi National Institute of Intellectual Property Management* and *Rashtrasant Tukadoji Maharaj Nagpur University*, *Nagpur* on August 22, 2016.

- 18. Training Program on Introduction to Indian Patenting Procedure. Jointly conducted by *Rajiv Gandhi National Institute of Intellectual Property Management* and *Priyadarshini College of Engineering*, *Nagpur* on December 08, 2017.
- 19. Seven days "Faculty Development Program for Student Induction (FDP-SI)". Organized by *All India Council for Technical Education (AICTE)* at *Jhulelal Institute of Technology, Nagpur,* during **05-11 September, 2018.**
- 20. Two-days Workshop on Intellectual Property Rights and Innovations (IPR-2018). Organized by *Research Centre, Department of Basic Science and Humanities, East-West Institute of Technology* in association with *Karnataka State Council for Science & Technology (KSCST)* during **October 11-12, 2018**.
- 21. Online Refresher Course in Chemistry for Higher Education Faculty. Organized by *Government of India, Ministry of Human Resource Development and AICTE SWAYAM (SWAYAM MOOC portal) under ANNUAL REFRESHER PROGRAMME IN TEACHING (ARPIT)* during **March 2019.**

# **OTHER INFORMATIONS**

- Best Paper Award-2020 for paper entitled 'Experimental Investigation of Radiostability of Polyvinyl Chloride for Suitability in High Energy Applications' Awarding body: International Conference on Advances in Physical, Chemical and Mathematical Sciences (ICAPCM2020), February 2020.
- Certificate of Appreciation Teacher Innovation Award for sustainable efforts towards promoting joyful and experiential learning Awarding body: Sri Aurobindo Society, September 2019
- Best Paper Award-2019 for paper entitled 'Evaluation of optical and colorimetric properties as an assessment tool for paper gamma dosimeters' Awarding body: Society of Technologically Advanced Materials of India (STAMI), June-2019.
- Best Teacher Award 2017-18 (Maharashtra)- Awarding body: Society of Technologically Advanced Materials of India (STAMI), September-2018
- ISCAS Bronze Medal-2007 for paper entitled 'Semi-quantitative estimation of gamma radiation dose using certain dye strips' Awarding body: Indian Association of Solid State Chemists and Allied Scientists, Nov-2007.
- University Topper in Summer-2005 for 'Certificate Course in German' Awarding body: Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur, Summer – 2005.

## **EDITORIAL BOARD MEMBERSHIPS: 05**

- 1. African Journal of Microbiology Research, Academic Journals.
- 2. *International Journal of Environmental Engineering and Management* (IJEEM), Research India Publications, Delhi, INDIA.
- 3. *International Journal of Chemistry and Chemical Engineering* (IJCCE), Research India Publications, Delhi, INDIA.
- 4. *International Journal of Nano-Science and Nanotechnology*, International Research Publication House, Delhi, INDIA.
- 5. Science Journal of Analytical Chemistry, Science Publishing Group, New York, USA

## LIFE MEMBERSHIPS: 05

- 1. Indian Association of Solid State Chemists and Allied Scientists (ISCAS)-LM 251
- 2. Chemical Research Society of India (CRSI)-LM 780
- 3. Indian Society for Technical Education (ISTE)- LM 109877
- 4. Society for Technologically Advanced Materials of India (STAMI)-Executive Committee Member
- 5. Indian Society of Analytical Scientists (ISAS)-Joint Secretary (ISAS, Nagpur Chapter)

## PERSONAL INFORMATION

**FATHER'S NAME:** Mr. Birendra Kishore Das Sarma **ADDRESS:** 

## **CORRESPONDENCE-**

C/o Mr. B. K. Das Sarma Plot No. 82, Flat C-804 Shivpriya Towers (C-Wing) Opp. Prasadnagar Bus Stop, Jaitala NAGPUR - 440 036.

## E-MAIL-

**CONTACT NUMBERS-(M)** 09673991974 dassarmaindrani@rediffmail.com (R) 09370143433 dassarmaindrani@gmail.com NATIONALITY: INDIAN DATE OF BIRTH: 20<sup>th</sup> September 1978 LANGUAGES KNOWN: English, Hindi, Bengali, Marathi, German.

**Reference:** 

Prof. D. V. Parwate Department of Chemistry **RTM Nagpur University** Nagpur-440 010 dilipparwate@rediffmail.com +91-9822738642

Dr. D. S. Bhowmick Vice-principal Jhulelal Institute of Technology Lonara, Nagpur-441 111 <u>d@jit.org.in</u> +91-7020951028

Date: 18.07.2021

(Indrani B. Das Sarma)