Faculty Details proforma for DU Web-site

Title	Dr.	First Name	Ram Kuntal	Last Name	Hazra	
Designation		Assistant Professor				
Address		Department of Chemistry University of Delhi, Delhi, India				
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Educational Qualifications

Degree	Institution	Year
Ph.D.	Indian Association for the Cultivation of Science, Jadavpur University	2002-2009
Ph D (Interim)	Tata Institute of Fundamental Research, Mumbai	2001-2002
PG	Indian Institute of Technology, Roorkee, Uttaranchal	1999-2001
UG	B Sc (Hons.), Chemistry, University of Burdwan	1998
10+2	West Bengal Council of Higher Secondary Education	1994
Madhyamik	West Bengal Board of Secondary Education	1992
Extra-curricular Activities	Grade-II, Classical Guitar, Trinity College London	2013

Career Profile

- **Postdoctoral Fellowship in ETH-Zurich, 2008-2009**
- **Dr. D. S. Kothari Postdoctoral Fellowship, (UGC, MHRD) September 2009**
- **Visiting Postdoctoral Fellow, Weizmann Institute of Science, June 2008**
- **CSIR-UGC NET, December 2000, (Junior Research Fellow) (JRF)**
- **Within Top 20% in CSIR-UGC NET, December 2000, Called for S P M Fellowship**
- **CSIR-UGC NET, June 2003, (LS)**
- **GATE (IITK) 2001, 97.68 percentile, Rank 44**
- **Appointment for the Post of Assistant Professor, Department of Chemistry, University of Delhi, 2010, Rank-1**
- **Madhyamik, West bengal Board of Secondary Education, Rank-121**

Administrative Assignments

- **Member, TRS Building**
- **Instrumentation-I, Nanoscience & Nanotechnology**
- **Member, Department Research Committee**

Areas of Interest

- **Non-linear Optics**
- **Physics of low temperature phenomena**
- **Correlations of many electron system and multi-pole expansions**

In Future:

- **Non-V-representable DFT**
- **DFT calculation and conjecture approach to mechanism of oxidative stress in cell**

Subjects Taught

- **Quantum Chemistry, Paper-103, 2010**
- **Introductory Chemistry, NSNT-103, M Tech (NSNT) 2010**
- **Quantum Chemistry, Paper-103, 2011**
- **Lab Work of Chemistry, M Tech (NSNT), 2010-2011**
- **Lab Work+Project Evaluation, Paper-4312, 2011**
- **Introductory Quantum Mechanics, NSNT-203, M Tech (NSNT) 2011**
- **Lab Work of Chemistry, M Tech (NSNT), 2011-2012**
- **Quantum Chemistry, Paper-103, 2012**
- **Introductory Quantum Mechanics, NSNT-203, M Tech (NSNT) 2012**
- **Lab Work, Paper-4312, Department of Chemistry, 2012**

- **Mentored Projects of M. Tech. (NSNT) in 2012**

- **Quantum Chemistry, Paper-103, 2013**
- **Introductory Quantum Mechanics, NSNT-203, M Tech (NSNT) 2013**
- **Lab Work of Chemistry, M Tech (NSNT), 2012-2013**
- **Lab Work of Chemistry, M Sc (Chemistry), 2013-2014**
- **Introductory Chemistry, NSNT-103, M Tech (NSNT) 2014**
- **Quantum Chemistry, Paper-103, 2014**
- **Lab Work of Chemistry, M Sc (Chemistry), 2014-2015**
- **Lab Work of Chemistry, M Sc (Chemistry), 2015-2016**

- **Statistical Mechanics, Electrochemistry, chemical kinetics & Polymer, Paper-203, 2016**

Research Guidance

- **Number of Mentoring Ph D student: 4**

Publications Profile

- **Linear and Non-linear response of 2-D single carrier dots: Role of impurity perturbations, Ram Kuntal Hazra, Manas Ghosh and S. P. Bhattacharyya, Chem. Phys., 333, 18 (2007)**
- **Quantum Adiabatic Switching Route to the Impurity Modulated states of 2-D Quantum Dots With different switching functions,Ram Kuntal Hazra, Manas Ghosh and S. P. Bhattacharyya, Int. J. Quant. Chem., 108, 719 (2007)**
- **Modulation of the electronic states of 2-D single carrier quantum dots due to presence of hole doped impurity perturbations, Ram Kuntal Hazra, Manas Ghosh and S. P. Bhattacharyya, Chem. Phys., 344, 61 (2008)**
- **Information entropy and level spacing distribution based signatures of quantum chaos in electron doped 2D single carrier quantum dots, Ram Kuntal Hazra, Manas Ghosh and S. P. Bhattacharyya, Chem. Phys. Lett., 460, 209 (2008)**
- **Metastable impurity perturbed states of 2-D quantum dots, Ram Kuntal Hazra, Manas Ghosh and S. P. Bhattacharyya, Chem. Phys. Lett., 468, 216 (2009)**
- **A linear variational route to the polarizability of 2-D artificial atoms: effects of anharmonicity in the confinement potential, Manas Ghosh, Ram Kuntal Hazra and S. P. Bhattacharyya, Chem. Phys. Lett., 388, 337 (2004)**
- **Non-linear optical response of single carrier 2-D anharmonic Quantum dots, Manas Ghosh, Ram Kuntal Hazra and S. P. Bhattacharyya, Chem. Phys. Lett., 397, 258 (2004)**
- **Maximizing second hyperpolarizability of single carrier 2D quantum dots: Interplay of strengths of confining potential, magnetic field and anharmonicity, Manas Ghosh, Ram Kuntal Hazra and S. P. Bhattacharyya, Chem. Phys. Lett., 405, 410 (2005)**
- **Response of Energy Levels and Wavefunctions of 2-D Artificial Atoms to Changes in Parameters in the Hamiltonian, Manas Ghosh, Ram Kuntal Hazra and S. P. Bhattacharyya, J. Theo. Comp. Chem, 5, 25 (2006)**
- **Linear and Non-linear optical response properties of singlet 2-electron quantum dots, Manas Ghosh, Ram Kuntal Hazra and S. P. Bhattacharyya, Chem. Phys. Lett., 434, 56 (2007)**
- **Response Properties of 2-electron 2-D Quantum Dots : Triplet versus Singlet, Manas Ghosh, Ram Kuntal Hazra and S. P. Bhattacharyya, Computing Letters, 3, 183 (2007)**

- **Response Dynamics of 2-D Quantum Dots in the presence of time-varying Fields: Anharmonicity and Pulse shape effects, Manas Ghosh, Ram Kuntal Hazra and S. P. Bhattacharyya, Chem. Phys., 345, 103 (2008)**
- **Rabi Type oscillations in damped two-dimensional single electron quantum dots", Madhuri Mukhopadhyay, Ram Kuntal Hazra, Manas Ghosh, Samaresh Mukherjee and Shankar P. Bhattacharyya, Cent. Eur. J. Phys., 10(4), 983 (2012)**

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Conference Organization/ Presentations

- **International Symposium on Spectroscopy, Structure and Dynamics, Indian Associa-tion for The Cultivation of Science, Kolkata, December 12-13, 2002.**
- **Trends in Theoretical Chemistry-2002, Indian Association for The Cultivation of Science, Kolkata, January 17-19, 2003**
- **DAE-BRNS Symposium on Theoretical Chemistry (TCS-2004), Bhabha Atomic Research Centre, Mumbai, December 9-11, 2004.**
- **7th Chemical Research Society of India, National Symposium in Chemistry, Indian Association for the Cultivation of Science, Kolkata, February 4-6, 2005.**
- **National Symposium on Quantum Chemistry, Soft Computing and Optimization, Indian Association for the Cultivation of Science, Kolkata, April 4-5, 2008.**
- **Condensed Matter Days 2008, Visva-Bharati University, Santiniketan, Bolpur, India.**
- **August 29-31, 2008. Oral Presentation : "Quantum Adiabatic Evolution and Artificial Atoms".**
- **Progress of Academics and Industry In the Development of Nanotechnology, University of Delhi, March 18, 2013.**
- **Chemistry in Interdisciplinary Applications, Hansraj College, University of Delhi, March 19, 2013.**
- **National Symposium on Non-equilibrium Statistical Physics and Nonlinear Dynamics, January 2-4,2014**

Research Projects (Major Grants/Research Collaboration)

1. "Novel Approaches to Multicarrier Phenomena of Quantum Dots" SR/S1/PC-47/2012 by SERB (DST), 2. DU-DST PURSE GRANT PHASE-II

Awards and Distinctions

- **Dr. D. S. Kothari Postdoctoral Fellowship, (UGC, MHRD) September**
- **Grade-II, Classical Guitar, Trinity College London, 94% (Distinction)**

Association With Professional Bodies

- **Member, TRS Building, Department of Chemistry**
- **Member, Department Research Committee**

Other Activities

Workshop for "Development of Training Package in Chemistry in Higher Level", National Council of Educational Research and Training", 2014