

Dr. Manas Kanti Deb (CI)

1. Residential address: 'Bela Villa', Kargil Chowk, Sector-3, Shivanand Nagar, P.O. Khamtarai, Raipur 492 009, C.G., India University, Raipur, India.
2. Educational qualification: M.Sc. (Chemistry) 1987, Pt. Ravishankar Shukla University, Raipur, India; Ph.D. (Chemistry) 1991, Pt. Ravishankar Shukla University, Raipur, India; Ph.D. Thesis 'Analytical Chemistry of Some Toxic Metals'
9. Current position: Professor & Head, SoS in Chemistry (since 01-07-2016)
Professor & Head, SoS in Environ Science (since 01-12-2016)
Chairman, DRC
Dy. Coordinator, UGC-SAP DRS-II
10. Employer's name: Registrar, Pt. Ravishankar Shukla University, Raipur- 492 010, Chhattisgarh, India.
11. Teaching experience: 23 Years Postgraduate (M.Sc.) teaching
12. Research experience: 29 Years
13. Research Guidance:
 - 09 students awarded Ph.D. degree
 - 09 students registered for Ph.D. degree
 - 08 students guided for M. Phil. Degree
 - 01 Ph.D. student (Dr. Santosh Kumar) awarded with Marie-Curie iLEAP fellowship 2008 to attend international workshop on 'Air-Quality', Helsinki, Finland, March 2008.
 - 02 Years' Post doc fellowship in Sapporo Univ. Japan with Prof. Kawamura 2012 (Dr. Santosh Verma & Dr. Dhananjay Deshmukh)
 - 01 Ph.D. student (Dr. Shilpa Sharma) awarded with State Young Scientist Award, 2007, Bilaspur, C.G.
 - 01 Ph.D. student (Dr. Devsharan Verma) awarded with European Science Foundation Fellowship to attend international conference on 'Nanocarbon', Naples, Italy, September, 2009.
 - 01 M.Phil. student (Ms. Mousami Jangde) awarded with Rajiv Gandhi National Fellowship, 2008.
 - 01 Ph.D. student (Mr. Dhananjay Deshmukh) awarded with fellowship to attend international aerosol conference (IAC 2010), Helsinki, Finland, Aug 29 to Sept 3, 2010; JSPS Postdoctoral Fellow Aug 2014-July 2016, ILTS Sapporo Japan
 - 01 Ph.D. student (Ms. Jolly Pal) awarded with state Young Scientist award, 2011 & best poster award in 4th International Congress of Environ Res SVNIT Surat, 2011 .

14. Research papers published in National/ International Journals: : ~ 100
15. Papers presented/ abstracted in National/ International Conferences: : more than 70
16. Scientific manuscripts JICS, J. reviewed : More than 80 (J. AOAC Intern., Talanta, J. Environ. Res., Hazardous Materials, ACS journals, Analytical Letters, AAQR, Journal of Environmental Management, Ind J Radio Space Physics, J. Atmos Chem, J Open Atmos Res, Atmos. Env., EMAS, Crystal Growth, IJEAC, etc.), Meteorology & Atmospheric Physics, Sci Total Environ, Atmos Res, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Journal of Environmental Management, International Journal of Physical Sciences, IJEAC, J. Hazardous Materials,
13. Post doctoral studies: Research Associate, Council of Scientific & Industrial Research (CSIR), New Delhi, 2 Years [1991-1993]
14. Awards: Young Scientist Award, MP Council of Science & Technology, Govt. of M.P., Bhopal, India, 1991. Esteemed by M.P. Council of Science, adjudged best research work, Bhopal, 1992
15. Fellowships:
 - Indian National Science Academy (INSA)-Japan Society for the Promotion of Science (JSPS) Fellowship under bilateral exchange program, 1999 (3 months)
 - Indian National Science Academy (INSA)-Royal Society London Fellowship under interacademic exchange program, 2007-2008 (3 months) Nominated
16. Membership of Scientific Organization
 - a. Ex-Member, European Geosciences Union, Austria
 - b. Life Member, Indian Chemical Society, Kolkata
 - c. Life Member, Indian Science Congress Association, Kolkata
17. Editorship
 - 1. Member, Editorial Board, The J. Open Atmos. Res., USA
 - 2. Managing Editor, RS University Journal, India
18. Countries visited: Japan (1999), Japan (2003), Thailand (2003), Austria (2008)
19. Projects handled/ongoing*: 07 (Madhya Pradesh Council of Science & Technology (MPCOST, 1994-96), Bhopal, India; University Grants Commission (UGC, 1996), New Delhi; Chhattisgarh Council of Science & Technology (CCOST, 2000-01; 2016-18)*, Raipur, India; Indian Space Research Organization (ISRO, 2004-07), Bangalore, India), University Grants Commission (UGC, 2008-09); Department of Science & Technology New Delhi (DST, 2010-2013); Science & Engineering Research Board,

Department of Science & Technology New Delhi (SERB, DST, 2013-2016)*.

21. Scientific collaborations:

1. Public Health and Research Institute of Kobe City, Kobe-shi, Hyogo 650-0046, Japan
2. Department of Environmental Engineering and Science, Chia Nan University of Pharmacy and Science, Tainan 717, Taiwan
3. Department of Low Temperature Atmosphere, Hokkaido University, Japan
4. National Metallurgical Laboratory, Jamshedpur, India

22. Administrative Activities

Ex-Member of University Board of Studies, Member Board of Studies of Govt. College Raigarh (C.G.), Worked as Superintendent of University Examination (01)/ Asstt. Supdt. of University Examinations (11) / Central Valuation (03)/ CSIR NET exam (06)/ Asstt. Superintendent (01) State PSC exam/, Member Governing Bodies of various Colleges affiliated to Pt. R.S. University, Member of University Flying Squad(04), Member Anti Ragging Committee, University Observer Annual Examination, Member College Inspection Committee, Subject expert CGVYAPAM, Resource Person UGC Refresher Course, Resource Person UGC's remedial courses in Colleges, Member UGC XI Plan Proposal Committee, Member NAAC Proposal Committee, In-charge Grants Cell, Co-ordinator P.G. Valuation Unit, Centre Supdt IGNOU 2011, Co-ordinator Distribution Centre: University Examination 2012, Co-ordinator of sub-committee: NCNR Workshop Sept 2012. Asstt. Co-ordinator Valuation Suppl. Exam. 2012, Advisor Selection Committee SSC 2011; 2012, Expert Member Selection Committee IGKV 2012, Subject Expert Selection Committee Bilaspur University 2013, 2014; Subject Expert SSC Raipur 2015; Subject Expert MPPSC 2015; Subject Expert Selection Committee Affiliated College of PRSU; Subject Expert PRS Univ affiliated colleges for appointment of Asstt Prof & Principals, Selection committee member CSVTU, Bhilai June 2015, Mentoring to students at PG level and students of CBS PRSU 2015., Dy. Coordinator UGC-SAP (Level-II) 2015-2020; Member, Student Union Election Committee PRSU, 2015; Member East-zone Youth Festival 2015-16; Member POC 2015; Member, Internal Quality Audit-IQAC PRSU 2015, Steering Committee Member of PRSU, NAAC 2016, Member Selection Committee CGPSC Nov 2016, Member East-zone Youth Festival 2016-17, Member Selection Committee Sambalpur University 2017.

23. Ph.D. thesis evaluation

Kalyani University, West Bengal (02); Burdwan University, West Bengal (01); Rani Durgawati Vishwavidyalaya, Jabalpur (03), Amravati University,

Maharashtra (04); Nagpur University, Maharashtra (02);
Rewa University, Rewa, M.P. (02); CV Raman University,
Bilaspur, C.G. (01)

24. Conference/ Workshop organized
1. Chemistry Teachers Training Program, ©RSC & PRSU
October 6-8, 2015, Organizing Secretary;
 2. XVII NATCOSEB © ISSST 4-6 Nov 2015, Organizing
Secretary.

List of Publications

(A) Papers Published in International/National Journals

2019		
	A direct DRS-FTIR probe for rapid detection and quantification of fluoroquinolone antibiotics in poultry egg-yolk (R Kurrey, M Mahilang, MK Deb, J Nirmalkar, K Shrivass, S Pervez, MK Rai,)	Food chemistry (© Elsevier), 2019, 270, 459-466
	Analytical approach on surface active agents in the environment and challenges (R Kurrey, M Mahilang, MK Deb, K Shrivass)	Trends in Environmental Analytical Chemistry (© Elsevier), Volume 21, January 2019, e00061
	Surface enhanced infra-red spectroscopy with modified silver nanoparticles (AgNPs) for detection of quaternary ammonium cationic surfactants (R Kurrey, MK Deb, K Shrivass)	New Journal of Chemistry 43 (21), 8109-8121
	Modified silver nanoparticles enhanced single drop micro extraction of tartrazine in food samples coupled with diffuse reflectance Fourier transform infrared spectroscopic analysis (S Tiwari, MK Deb)	Analytical Methods (RSC) 2019,11, 3552-3562
	Silver nanoparticles for selective detection of phosphorus pesticide containing π -conjugated pyrimidine nitrogen and sulfur moieties through non-covalent interactions, (Kamlesh Shrivass, Sushama Sahu, Bhuneshwari Sahu, Ramsingh Kurrey, Tarun Kumar Patle, Tushar Kant, Indrapal Karbhal, Manmohan L Satnami, Manas Kanti Deb, Kallol Kumar Ghosh)	Journal of Molecular Liquids ((© Elsevier) 2019, 275, 297-303
	Application of functionalized silver nanoparticles as a biochemical sensor for selective detection of lysozyme protein in milk sample (K Shrivass, N Nirmalkar, MK Deb, K Dewangan, J Nirmalkar, S Kumar)	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy ((© Elsevier), 2019, 213, 127-133
2018		
	Sucrose capped gold nanoparticles as a plasmonic chemical sensor based on non-covalent interactions: Application for selective detection of vitamins B1 and B6 in brown rice (Kamlesh Shrivass, Nidhi Nirmalkar, Santosh Singh Thakur, Manas Kanti Deb, Sandip S Shinde, Ravi Shankar)	Food chemistry ((© Elsevier), 2018, 250, 14-21
	Methyl Orange Paired Microextraction and Diffuse Reflectance-Fourier Transform Infrared Spectral Monitoring for Improved Signal Strength of Total Mixed Cationic	Journal of Surfactants and Detergents (Springer) , 2018, 21 (2), 197-208

	Surfactants (R Kurrey, MK Deb, K Shrivastava)	
	PM2.5 pollution from household solid fuel burning practices in Central India: 2. Application of receptor models for source apportionment (JL Matawle, S Pervez, MK Deb, A Shrivastava, S Tiwari)	Environmental geochemistry and health (Springer), 2018, 40 (1), 145-161
	A low-cost screen printed glass electrode with silver nano-ink for electrochemical detection of H ₂ O ₂ (A Ghosale, K Shrivastava, MK Deb, V Ganesan, I Karbhal, PK Bajpai)	Analytical methods (RSC), 2018, 10 (26), 3248-3255
2017		
	PM2.5 pollution from household solid fuel burning practices in central India: 1. Impact on indoor air quality and associated health risks (JL Matawle, S Pervez, A Shrivastava, S Tiwari, P Pant, MK Deb, DS Bisht,)	Environmental geochemistry and health (Springer), 2017, 39 (5), 1045-1058
	Determination of Selenium by Single-Drop Microextraction and Diffuse Reflectance Infrared Spectroscopy (BK Sen, S Tiwari, MK Deb, S Pervez)	Analytical Letters (Taylor Francis) 50 (9), 1483-1496
	Cloud point extraction and diffuse reflectance-Fourier transform infrared spectroscopic determination of chromium (VI): A probe to adulteration in food stuffs (S Tiwari, MK Deb, BK Sen)	Food chemistry (Elsevier), 2019, 221, 47-53
	Fourier transform infrared spectroscopy combined with single-drop micro-extraction for quantitative analysis of tungstate in biological samples (BK Sen, S Tiwari, MK Deb)	Vibrational Spectroscopy (Elsevier, 2017 89, 9-15
2015-16		
105.	PM2.5 pollution from household solid fuel burning practices in central India: Impact on indoor air quality and associated health risks (Jeevan Lal Matawle . Shamsh Pervez . Anjali Shrivastava . Suresh Tiwari . Pallavi Pant . Manas Kanti Deb . Diwan Singh Bisht . Yasmeen F. Pervez)	Environ. Geochem. Health ©Springer Science+Business Media Dordrecht 2016 DOI 10.1007/s10653-016-9871-8 Accepted: 6 September 2016
104.	Determination of Selenium by Single-Drop Microextraction and Diffuse Reflectance Infrared Spectroscopy (Bhupendra Kumar Sen, Manas Kanti Deb*, Swapnil Tiwari, Shamsh Pervez)	Analytical Letters, © Taylor & Francis, LANL-2016-0964, Accepted August 24, 2016 IF: 1.20

103.	Dicarboxylic acids, ω -oxocarboxylic acids, α -dicarbonyls, WSOC, OC, EC, and inorganic ions in wintertime size-segregated aerosols from central India: sources and formation processes (Dhananjay K. Deshmukh*, Kimitaka Kawamura, Manas K. Deb, and Suresh Kumar Reddy Boreddy)	Chemosphere, © Elsevier, 161 (2016) 27-42 IF: 3.698
102.	A comprehensive review on perchlorate chemistry (Swati Chandrawanshi· Manas Kanti Deb*. Jayant Nirmalkar· Bhupendra Kumar Sen· Swapnil Tiwari· Ramsingh Kurrey. Mithlesh Mahilang)	Under process of submission
101.	Fourier transform infrared spectroscopy combined with single- drop micro-extraction for quantitative analysis of tungstate in biological samples (Bhupendra K. Sen, Manas Kanti Deb*, Swapnil Tiwari)	Vibrational Spectroscopy, © Elsevier, Accepted 24-12-2016 IF : 1.682
100.	Cloud point extraction and diffuse reflectance-Fourier transform infrared spectroscopic determination of chromium(VI): a probe to adulteration in food stuffs (Swapnil Tiwari, Manas Kanti Deb*, Bhupendra K. Sen)	Food Chemistry, © Elsevier Vol. 221, 15 April 2017, Pages 47–53; IF : 4.052
99.	Analytical Approach on Surface Active Agents in the Environment and Related Problems and Challenges: A Review (Ramsingh Kurre, Manas Kanti Deb*, Jayant Nirmalkar, Bhupendra Sen, Swapnil Tiwari, Swati Chandrawanshi)	J. Surfactants & Detergents © Springer, Submitted JSD-16-0153 26-04-2016
98.	Sources and formation processes of water-soluble dicarboxylic acids, ω -oxocarboxylic acids, α -dicarbonyls, and major ions in summer aerosols from eastern central India (Dhananjay K. Deshmukh, Kimitaka Kawamura*, Manas K. Deb, and Suresh Kumar Reddy Boreddy)	Journal of Geophysical Res. © AGU, DOI:10.1002/2016JD026246 Online 08-03-2017
97.	Indoor PM _{2.5} emissions and associated health risks from household solid fuel burning practices (Jeevan Matawle, Shamsh Pervez, Anjali Shrivastava, Suresh Tiwari, Pallavi Pant, Manas K Deb, Diwan S Bisht)	Urban Climate, © Elsevier, submitted 24-12-2015
96.	Characterization of PM _{2.5} Source Profiles for Traffic and Dust Sources in Raipur, India (Jeevan Matawle, S. Pervez, Shippi Dewangan, Anjali Shrivastava, Pallavi Pant, Suresh Tiwari, Manas K Deb, Yasmin Pervez)	Aerosol Air Qual. Res., © TAAR, AAQR-15-04-OA-0222.R2 (Accepted: 14 Sept 2015) IF: 2.094
95.	Seasonal size distribution and possible health implications of atmospheric aerosols collected from a rural site of eastern central, India (Jayant Nirmalkar, Manas Kanti Deb*, Swati Chandrawanshi, Swapnil Tiwari, Dhananjay Deshmukh)	Atmos. Poll. Res. March 2016, (2), 278–287 IF: 1.371

94.	Nanogram level quantification of molybdenum(VI) by novel hyphenated SDME/DRS-FTIR in human biological fluid (Bhupendra K. Sen, Swapnil Tiwari, Manas Kanti Deb*, Shamsh Pervez)	Anal. Methods, ©Royal Society of Chemistry, 2015, 7 , 9474-9481 IF 1.821
93.	Microwave-assisted synthesis of palladium nanoparticles and its catalytic degradation of organic dyes in aqueous solution (Jolly Pal, Manas K Deb*)	Journal of Water Chemistry and Technology, © Springer (Accepted), 2015; MS # 1124
92.	Impact of intense field burning episode on aerosol mass loading and its possible health implications in rural area of eastern central India (Jayant Nirmalkar, Manas K. Deb*)	Air Qual. Atmos. Health, © Springer, DOI 10.1007/s11869-015-0330-y, Feb 2015: IF 1.801
91.	Arabitol and mannitol as tracers for fungal contribution to size-differentiated particulate matter of rural atmospheric aerosols (Jayant Nirmalkar, M.K. Deb*, Y.I. Tsai, D.K. Deshmukh)	Intern. J Environ. Sci. Dev., © IACSIT Press, 6(6), June 2015, 460-463
90.	Mass loading and temporal variation of molecular markers in PM _{2.5} aerosols over a rural area in eastern central India (Jayant Nirmalkar, Manas K Deb*, Dhananjay K. Deshmukh, Ying I Tsai*, Khajornsak Sopajaree)	Atmospheric Environment, © Elsevier, 2015, 117 , 41-50 IF 3.281
2014		
89.	Catalytic diazotization using silver and gold nanoparticles and spectrophotometric determination of parathion residues in fruit and soil (S Sharma, M.K. Deb)	J. Indian Chem. Soc., © JICS, 91 (1), 101-105, 2014
88.	Removal of phenol in aqueous solution by adsorption onto green synthesized coinage nanoparticles beads (Jolly Pal, M.K. Deb, Dhananjay Deshmukh)	Res. Chem. Intermediates, © Springer, MSiD RINT-D-14-00577R1. (Accepted- 08 Dec 2014) IF: 1.54
87.	Removal of phenolic compounds from aqueous phase by adsorption onto polymer supported iron nanoparticles (Bhupendra K Sen, Dhananjay K Deshmukh*, Manas K Deb, Devsharan Verma, Jolly Pal)	Bulletin of Environ. Cont. Toxic., © Springer, MS BECT7058.R1 (Accepted), 2014, IF: 1.26
86.	Molecular markers in ambient aerosol in the Mahanadi Riverside Basin of eastern central India during winter (Jayant Nirmalkar, Manas Kanti Deb, Dhananjay Deshmukh, Y.I. Tsai*, Santosh Kumar Verma)	Environmental Science and Pollution Research © Springer 22 (2015), 1220-1231, IF 2.83
2013		
85.	Green synthesis of Au/AgNPs and their photodegradation of organic dyes in aqueous solution (Jolly Pal, Manas Kanti Deb, J.K. Sircar)	JICS © <i>Ind Chem Soc</i> , 90 (2013 Nov), 2115-2120

84.	Efficient adsorption of congo red dye from aqueous solution using green synthesized coinage nanoparticles coated activated carbon beads (Jolly Pal and Manas Kanti Deb*)	Applied Nanoscience © <i>Springer</i> ANSC-D-13-00100 (2013) Accepted October 19, 2013 DOI: 10.1007/s13204-013-0277-y
83.	Microwave green synthesis of biopolymer stabilized silver nanoparticles and their adsorption behavior for atrazine (Jolly Pal and Manas Kanti Deb*, J.K. Sircar, P.K. Agnihotri)	Applied Water Sci. © <i>Springer</i> , AWSC-D-13-00064 (2013) Accepted March 10, 2014 DOI: 10.1007/s13201-014-0179-5
82.	Seasonal Air Quality Profile of Size-Segregated Aerosols in the Ambient Air of Central India Region (Dhananjay K Deshmukh*, Manas K Deb, D Verma, J Nirmalkar)	Bulletin of Environmental Contamination and Toxicology © <i>Springer</i> (2013) 91, 704-710 September 2013 (DOI: 10.1007/s00128-013-1121-5) IF: 1.26
81.	Microwave-assisted synthesis of silver nanoparticles using benzo-18-crown-6 as reducing and stabilizing agent (Jolly Pal and Manas Kanti Deb*)	Applied Nanoscience © <i>Springer</i> , ANSC-D-13-00057R1 (2013) Accepted 28 April 2013 DOI: 10.1007/s13204-013-0229-6
80.	Removal of methyl orange by activated carbon modified by silver nanoparticles (Jolly Pal and Manas Kanti Deb*, Dhananjay Kumar Deshmukh, Devsharan Verma)	Applied Water Sci. © <i>Springer</i> , AWSC-D-12-00077R2 (2012) Accepted 28 January 2013 DOI: 10.1007/s13201-013-0087-0
2012		
79.	Mass Loading of Size-Segregated Atmospheric Aerosols in the Ambient Air During Fireworks Episodes in Eastern Central India (Jayant Nirmalkar, Manas K. Deb*, Dhananjay K. Deshmukh and Santosh K. Verma)	Bulletin of Environmental Contamination and Toxicology © <i>Springer</i> (2013) 90, 434-439 IF: 1.26
78.	Microwave-assisted synthesis of platinum nanoparticles and their catalytic degradation of methyl violet in aqueous solution (Jolly Pal and M.K. Deb*)	Applied Nanoscience, © <i>Springer</i> , Ms. No. ANSC-D-12-00099 (2012) In Press DOI: 10.1007/s13204-012-0170-0
77.	Microwave synthesis of biopolymer stabilized silver nanoparticles and their adsorption behavior for atrazine	J. Experim. Nanosci., © <i>Taylor & Francis</i> , MS TJEN-2012-

	(Jolly Pal and M.K. Deb*)	0277 (2012), Under review Impact Factor: 0.875
76.	Efficient sorption of basic organic dyes from aqueous solution using green synthesized silver nanoparticles beads (Jolly Pal and M.K. Deb*)	J. Dispersion Sci. Tech., © Taylor & Francis, (2013), 34(9) 1193-1201 Impact Factor: 0.795
75.	Green formation and catalytic activity of palladium nanoparticles on brilliant green in aqueous solution (Jolly Pal and Manas Kanti Deb*)	Ind. J. Env. Prot. © Kalpana Corp. Varanasi, 32(7) (2012) 574-578.
74.	Removal of phenolic compounds by adsorption on to green synthesized silver and gold nanoparticle beads (Jolly Pal, M.K. Deb* and D. Verma)	J. Chinese Chem. Soc. (2012) JCCS-201200234 Under review
73.	Measurement of size-segregated aerosol concentration and seasonal variation in the ambient air of Durg city, India (Dhananjay K. Deshmukh, Manas K. Deb*, Jayant K. Sircar and Pradeep K. Agnihotri)	Stochastic Environ. Res. & Risk Assess. © Springer (2012) Revised
72.	Aerosol Size Distribution and Seasonal Variation in an Urban Area of an Industrial City in Central India (Dhananjay K. Deshmukh, Manas K. Deb*, Devsharan Verma and Santosh K. Verma, J. Nirmalkar)	Bulletin of Environmental Contamination and Toxicology © Springer (2012) 89, 1098-1104 IF: 1.26
71.	Characteristics and Sources of Water-Soluble Ionic Species Associated with PM ₁₀ Particles in the Ambient Air of Central India (Dhananjay K. Deshmukh, Ying I. Tsai, Manas K. Deb, Pavlos Zarmpas)	Bull Environ Contam Toxicol © Springer (2012) DOI 10.1007/s00128-012-0806-5 IF: 1.26
70.	Seasonal characteristics of water soluble dicarboxylates associated with PM ₁₀ in the urban atmosphere of Durg city, India (Dhananjay K. Deshmukh, Manas K. Deb, Philip K. Hopke and Ying I. Tsai*)	Aerosol Air Qual. Res., © TAAR, 12 (2012) 683-696 IF: 2.872
69.	Characteristics of dicarboxylates associated with inorganic ions in urban PM ₁₀ aerosols in the eastern central India (Dhananjay K. Deshmukh, Manas K. Deb*, Ying I. Tsai and Stelyus L. Mkoma)	Aerosol and Air Quality Research © Taiwan Association of Aerosol Research 12 (2012) 592-607 IF: 2.872
68.	Effective removal of brilliant green dye from aqueous solution by adsorption onto biopolymer supported silver nanoparticles beads (Jolly Pal and Manas Kanti Deb*)	Journal of Indian Chemical Society © Indian Chemical Society Dec. (2012) In press Manuscript ID: 293/2011
67.	Microwave synthesis of polymer coated silver nanoparticles by glucose as reducing agent (Jolly Pal and Manas Kanti Deb*)	Indian Journal of Chemistry: Section A 51 (2012) 821-824

66.	Assessment of Ambient Air quality through the Air Quality Index and Exceedance Factor for the City of Durg, Chhattisgarh (Dhananjay K. Deshmukh, M.K. Deb, D. Verma and S.K. Verma)	Recent Trends in Chemistry, Sikkim Manipal University, Sikkim INDIA: (2012) 44–50
65.	Aerosol Chemical Characterization during Southwest Monsoon Period Over the Ambient Air of Durg City, India (Dhananjay K. Deshmukh and M.K. Deb)	Opportunities and Challenges in Monsoon Prediction in a Changing Climate 2012 (OCHAMP 2012), Indian Institute of Tropical Meteorology, Pune INDIA MS ID OC-00010
64.	Size distribution and seasonal variation of size-segregated particulate matter in the ambient air of Raipur city, India (Dhananjay K. Deshmukh, Manas K. Deb* and Stelyus L. Mkoma)	Air Quality, Atmosphere and Health © <i>Springer</i> (2012) DOI: 10.1007/s11869-011-0169-9 Impact Factor: 1.979
63.	Microwave green synthesis of PVP stabilized gold nanoparticles and their adsorption behavior for methyl orange (Jolly Pal, Manas Kanti Deb*)	J. Experim. Nanosci., © <i>Taylor & Francis</i> , 1 (2012) 1-12 TJEN-2011-0077.R2 (In Press) Online DOI: doi.org/10.1080/17458080.2012.667160 Impact Factor: 1.011
2011		
62.	Water-soluble ionic composition of PM _{2.5-10} and PM _{2.5} aerosols in the lower troposphere of an industrial city Raipur, the eastern central India. (Dhananjay K. Deshmukh, Manas K. Deb*, Yukio Suzuki, Giorgos N. Kouvarakis)	Air Qual. Atmos. Health, © <i>Springer</i> , (2011) DOI 10.1007/s11869-011-0149-0 Impact Factor: 1.979
61.	Determination of vanadium employing a new combined single drop micro-extraction and diffuse reflectance Fourier transform infrared spectroscopy technique. (Devsharan Verma, M.K. Deb*)	Intern. J. Environ. Anal. Chem., © <i>Taylor & Francis</i> , 92 (2011) 57-75, Impact Factor: 1.162
60.	Water soluble ions in PM _{2.5} and PM ₁ aerosols in Durg city, Chhattisgarh, India (Dhananjay Deshmukh, Manas Kanti Deb*, Y.I. Tsai, Stelyus Mkoma)	Aerosol Air Qual. Res., © <i>TAAR</i> , 11 (2011) pp. 696-708 Impact Factor: 2.872
59.	Characteristics of Aerosols over Suburban Site of Eastern Central Region in India (S.K. Verma, D.K. Deshmukh, M.K. Deb*)	Adv. Environ Chem. (2011), © <i>Excel India Publishers, Delhi</i> , Proceed., AEC-033, Aizawal, 51-54.
58.	Atmospheric Particulate Pollutants and Their Relationship with Meteorology in Urban Area of Raipur, India	Adv. Environ Chem. (2011), © <i>Excel India Publishers</i> ,

	(Dhananjay Deshmukh, Manas Kanti Deb*)	<i>Delhi, Proceed., AEC-045, Aizawal, 59-64.</i>
57.	The Study of Ambient Coarse and Fine Aerosols at Suburban Location in Chhattisgarh State (D. Verma, D.K. Deshmukh, S.K. Verma, M.K. Deb*)	<i>Adv. Environ Chem. (2011), ©Excel India Publishers, Delhi, Proceed., AEC-031, Aizawal, 208-211.</i>
2010		
56.	Ion chemistry and source identification of coarse and fine aerosols in an urban area of eastern central India (S.K. Verma, M.K. Deb*, Y. Suzuki, T.A. Tsai)	<i>Atmospheric Research © Elsevier, 95 (2010) pp. 65-76 Impact Factor: 2.421</i>
55.	Atmospheric ionic species in PM _{2.5} and PM ₁ aerosols in the ambient air of eastern central India (Dhananjay K. Deshmukh, Manas Kanti Deb*, Ying I. Tsai, Stelyus L. Mkoma)	<i>J. Atmos. Chem. © Springer, 66 (2010) 81-100 DOI 10.1007/s10874-011-9194-1 Impact Factor: 1.326</i>
54.	Ion-chemistry, seasonal cycle and sources of PM _{2.1-10} and PM _{2.1} aerosols in industrial city Korba (Dhananjay Deshmukh and Manas Kanti Deb*)	<i>IASTA, 19 (1-2) (2010), 590-598</i>
53.	Fourier transform infrared spectroscopic determination of ammonium at sub-microgram level in waters and biological fluids following removal of nitrate from sample matrix by zerovalent iron nanoparticles (M.K. Deb* and Devsharan Verma)	<i>Microchimica Acta, ©Springer-Verlag, 169 (2010) pp. 23-31 DOI 10.1007/s00604-010-0308-2 Impact Factor: 3.03</i>
52.	Distribution patterns of coarse, fine and ultrafine atmospheric aerosol particulate matters in major cities of a central state in India (Dhananjay Deshmukh, Santosh Kumar Verma, M.K. Deb*)	<i>Ind. J. Environ. Prot., © Scientific Publisher, 27(3) (2010) pp 184-197</i>
51.	Quantitative analysis of inorganic ions in soil employing diffuse reflectance Fourier transform infrared spectroscopy (DRS-FTIR) (Manas K. Deb*, Devsharan Verma, Santosh K. Verma, Ninad Bodhankar, Jayant K. Sircar)	<i>J. Ind. Chem. Soc., © Ind Chem Soc, 87 (2010) pp. 1317-1327 Impact Factor: 0.34</i>
2009		
50.	Single Drop Micro-Extraction and Diffuse Reflectance Fourier Transform Infrared Spectroscopic Determination of Chromium in Biological Fluids (Devsharan Verma, Manas Kanti Deb*, Santosh Kumar Verma)	<i>Talanta, © Elsevier, 78 (1), 270-277 April (2009), doi:10.1016/j.talanta.2008.11.020 Available online 25 Nov. 2008; Impact Factor: 3.374</i>
2008		

49.	A simple Diffuse reflectance Fourier transform infrared spectroscopic determination of nitrogen dioxide (NO ₂) in ambient air (Santosh Kumar Verma, Devsharan Verma, Manas Kanti Deb*)	Atmospheric Research, ©Elsevier, 90 , pp. 33-40 (2008) DOI:10.1016/j.atmosres.2008.03.022 Impact Factor: 2.065
48.	Preparation of Silver Nanoparticles by Microwave Irradiation. (Shilpa Sharma, Manisha Thakur, Manas Kanti Deb*)	Current Nanoscience, ©Bentham Publication, 4 , 138-140 (2008) Impact Factor: 2.793
2007		
47.	Synthesis of silver nanoparticles using N ¹ ,N ² -diphenylbenzamidine by microwave irradiation method (Shilpa Sharma, Manas Kanti Deb* and Manisha Thakur)	J. Experimental Nanoscience, ©Taylor & Francis, 2 (4), 251–256 (2007); DOI:10.1080/17458080701753744 Impact Factor: 1.011
46.	A single drop and nanogram level determination of sulfite (SO ₃ ²⁻) in alcoholic and non-alcoholic beverage samples based on diffused reflectance Fourier transform infrared spectroscopic (DRS-FTIR) analysis on KBr matrix (Santosh K. Verma, Manas Kanti Deb*)	J. Agric. Food Chem., ©American Chem. Soc., 55 , 8319–8324 (2007) Impact Factor: 2.532
45.	Interaction of paraquat with electrochemically synthesized silver nanoparticles (Shilpa Dubey, Manas Kanti Deb*, Manisha Thakur)	J. Ind. Chem. Soc., © Ind Chem Soc 84 , 698-701 (2007) Impact Factor: 0.34
44.	A simple Diffuse reflectance Fourier transform infrared spectroscopic determination of sulphur dioxide (SO ₂) in ambient air using potassium tetrachloromercurate as absorbing reagent (Santosh Kumar Verma, Manas Kanti Deb*, S. Bajpai, Yukio Suzuki, S.K. Sinha and Y. Gong)	J. AOAC Intern., ©AOAC Inter USA, 90 (4), 1180-1190 (2007) Impact Factor: 1.046
43.	Determination of nitrite, nitrate and total nitrogen in vegetable samples (Manas Kanti Deb*, Manisha Thakur and Pushpa Khande)	Bull. Chem. Soc. Ethiop., © Chem. Soc. Ethiop., 21 (3), 445-450 (2007).
42.	Dominance of lithogenic effect for nickel, cobalt, chromium and mercury as found in freshly deposited sediments of the river Subernarekha, India (A.K. Upadhyay, K.K. Gupta, J.K. Sircar*, M.K. Deb, G.L. Mundhara)	Environ. Geology ©Springer-Verlag, UK., 51 , 1447-1453 (2007) DOI 10.1007/s00254-006-0441-0 Impact Factor: 0.722
41.	Direct and rapid determination of sulphate in environmental samples with diffuse reflectance Fourier transform infrared spectroscopy using KBr substrate (Santosh Kumar Verma, Manas Kanti Deb*)	Talanta, © Elsevier, UK, 71 , 1546-1552 (2007) Impact Factor: 3.374

40.	Nondestructive and rapid determination of nitrate in soil, dry deposits and aerosol samples using KBr matrix with diffuse reflectance Fourier transform infrared spectroscopy (DRIFTS) (Santosh Kumar Verma, Manas Kanti Deb*)	Anal. Chim. Acta, © Elsevier, 582 , 382-389 (2007) Impact Factor: 4.386
2006		
39.	Heavy metals in freshly deposited sediments of river Subernrekha river, India: an example of lithogenic and anthropogenic effects (A.K. Upadhyay, K.K. Gupta, J.K. Sircar*, M.K. Deb, G.L. Mundhara)	Environ. Geology ©Springer-Verlag, UK., 50 , 397-403 (2006) DOI 10.1007/s00254-006-0218-0 Impact Factor: 1.078
38.	Determination of cadmium(II) with 5-Br-PADAP in the presence of CPC and HPPBA (Ravi Kumar Banjare, Manas Kanti Deb*)	Indian J. Chem. Sec. A., © CSIR, 45 A , June, 1408-1412 (2006) Impact Factor: 0.920
37.	A direct spectrophotometric method for the determination of mercury in environmental and biological samples using p-carboxybenzene-diazoaminobenzene-p-azo benzene. (Ravi Kumar Banjare, Manas Kanti Deb*)	J. Indian Chem. Soc., © Ind Chem Soc, 83 , July, 702-706 (2006) Impact Factor: 0.34
2005		
36.	Spectrophotometric determination of rhodium(III) using 5-Br-PADAP and N-hydroxy-N,N'- diphenylbenzamidine as reagent by extracting it in dichloromethane. (M. Thakur, Manas Kanti Deb* and Pushpa Khande)	J. Indian Chem. Soc., © Ind Chem Soc, 82 , 285-289 (2005) Impact Factor: 0.34
35.	Determination of free and total zinc using 2-[(5-bromo-2-pyridylazo)]-5-diethylaminophenol in mixed surfactant medium (M. Thakur, Ravi Kumar Banjare, Manas Kanti Deb)	Indian J. Chem. Sec. A., © CSIR, 44A , March, 733-736 (2005) Impact Factor: 0.920
2004		
34.	Spectrophotometric determination of nickel(II) using 5-Br-PADAP and N-hydroxy-N,N'- diphenylbenzamidine. (Ravi Kumar Banjare, Manas Kanti Deb* and Manisha Thakur)	J. Indian Chem. Soc., © Ind Chem Soc, 81 , Aug., 709-111 (2004) Impact Factor: 0.34
33.	Load of some trace metals in the airborne dust particulates of an urban city of central India. (M. Thakur, Manas Kanti Deb*, S. Imai, Y. Suzuki, K. Ueki and A. Hasegawa)	J. Environ. Monit. & Assess., © Springer, 95 , 257-268 (2004) Impact Factor: 1.436
2002		

32.	Assessment of atmospheric arsenic level in airborne dust particulates of an urban city of central India. (M. Thakur, Manas Kanti Deb*, R.K. Mishra and N. Bodhankar)	J. Water, Air & Soil Poll., © Springer, 140 (1-4), Sept., 57-71 (2002) Impact Factor: 1.765
31.	Extraction-spectrophotometric determination of rhenium(VII) in ores with thiocyanate and N,N'-diphenylbenzamidine in the presence of cetyltrimethylammonium bromide. (Manas Kanti Deb*, M. Shrivastava)	J. Indian Chem. Soc., © <i>Ind Chem Soc</i> , 79 , April, 388-389 (2002) Impact Factor: 0.34
2001		
30.	Assessment of physico-chemical properties of airborne dust particulates in an urban city (M. Thakur, Manas Kanti Deb*)	Indian J. Environ. Hlth., © <i>NEERI</i> 21 , 225-237 (2001)
2000		
29.	Lead levels in the airborne dust particulates of an urban city of central India. (M. Thakur, Manas Kanti Deb*)	J. Environ. Monitor. & Assess., © <i>Springer</i> , 62 , 305-316 (2000) Impact Factor: 1.436
1999		
28.	The use of 1-[pyridyl-(2)-azo]-naphthol-(2) in the presence of TX-100 and N,N'-diphenylbenzamidine for the spectrophotometric determination of copper in real samples. (M. Thakur, Manas Kanti Deb*)	Talanta, © <i>Elsevier</i> , 49 , 561-569 (1999) Impact Factor: 3.722
27.	Spectrophotometric determination of lead with N-hydroxy-N,N'-diphenylbenzamidine and diphenylcarbazone in airborne dust particulates and soil. (M. Thakur, Manas Kanti Deb*)	The Analyst, © <i>RSC</i> , 124 , 1331-1335 (1999) Impact Factor 3.913 Immediacy index 1.032 – highest of any general analytical chemistry journal
26.	Field detection and sensitive determination of copper in soil and airborne dust particulates with 1-[pyridyl-(2)-azo]-naphthol-(2), N-Phenyl-N'-(4-methyl-phenyl)-benzamidine and triton X-100. (M. Thakur, Manas Kanti Deb*)	<i>J. AOAC Intern.</i> , USA 82 (3), 738-746 (1999) Impact Factor 1.046
25.	Spectrophotometric determination of arsenic, antimony, and bismuth with iodide and TX-100 in tank and industrial waste waters. (S. Roy, Manas Kanti Deb* and K.K. Ghosh)	<i>Indian J. Environ. Hlth.</i> , 19 (11), 822-827 (1999)
24.	Chemical speciation and determination of antimony with N,N'-diphenylbenzamidine and brilliant green in an acidic non-ionic micellar media.	<i>J. Indian Chem. Soc.</i> , © <i>Ind Chem Soc</i> , 76 , March, 145-147 (1999)

	(Manas Kanti Deb*, P.K. Agnihotri, M. Thakur and R.K. Mishra)	Impact Factor: 0.34
1998		
23.	Yellowish fog precipitation in the central India. (K.S. Patel, A.N. Tripathi, C.K. Chandrawanshi, S.G. Aggarwal, R.M. Patel, Manas Kanti Deb, P.K. Agnihotri and V.K. Patel)	<i>Proceedings, First Intern. Conference on Fog & Fog Collection, Vancouver, Canada, July 19-24, p. 309-312 (1998).</i>
22.	Sensitive determination of zinc with N-hydroxy-N,N'-diphenyl-benzamidine and diphenylcarbazon in airborne dust particulates. (M. Thakur, Manas Kanti Deb* and R.K. Mishra)	<i>Chemia Analityczna, Poland</i> 45(5) , 843-850 (1998) Impact Factor: 0.566
21.	Fractionation and spectrophotometric determination of thallium with N,N'-diphenylbenzamidine, brilliant green and cetyl-pyridinium chloride. (Manas Kanti Deb*, P.K. Agnihotri, M. Thakur and R.K. Mishra)	<i>Chem. Spec. & Bioavail., Australia</i> 10(2) , 53-60 (1998) Impact Factor: 1.022
20.	Spectrophotometric determination rhenium(IV) with thiocyanate, TX-100 and N,N'-diphenylbenzamidine. (P.K. Agnihotri, M. Thakur, Manas Kanti Deb* and R.K. Mishra)	<i>J. Chinese Chem. Soc.,</i> 45(3) , 401-406 (1998) Impact Factor: 0.819
1997		
19.	Spectrophotometric determination of bismuth with iodide and TX-100 in tank and industrial waste water (P.K. Agnihotri, Manas Kanti Deb* and R.K. Mishra)	<i>Chem. Environ. Res.,</i> 6(3&4) , 217-219 (1997)
18.	Spectrophotometric determination of 16behavior16 with thorin and N-hydroxy-N,N'-diphenylbenzamidine. (N. Nashine, Manas Kanti Deb* and R.K. Mishra)	<i>J. Indian Chem. Soc., © Ind Chem Soc,</i> 74 , February, 167 (1997) Impact Factor: 0.34
1996		
17.	Determination of mercury(II) concentration level in environmental samples. (N. Nashine, Manas Kanti Deb and R.K. Mishra)	<i>Annali Di Chimica, © Wiley Intersci., Italy</i> 86 , 381-391 (1996) Impact Factor: 0.689
16.	Spectrophotometric determination of vanadium(V) as complex with PBHA in the non-ionic micellar media. (S. Sar, Manas Kanti Deb* and K.K. Ghosh)	<i>J. Indian Chem. Soc.,</i> 74 , August, 662 (1996) Impact Factor: 0.34
15.	Spectrophotometric determination of thorium in standard samples and monazite sands based on floated complex of thorium with N-hydroxy-N,N'-diphenylbenzamidine and thorin.	<i>Fresenius' J. Anal. Chem., © Springer (Currently Analytical & Bioanalytical Chem)</i> 355 , 34-40 (1996) Impact

	(N. Nashine, Manas Kanti Deb and R.K. Mishra)	Factor 3.578
14.	Spectrophotometric determination of zinc dimethyl dithiocarbamate (ziram) with hydroxyamidine and 4-(2-pyridylazo)-naphthol. (S. Chakravarty, Manas Kanti Deb and R.K. Mishra)	<i>J. Indian Chem. Soc.</i> , © <i>Ind Chem Soc</i> , 73 , 551-552 (1996) Impact Factor: 0.34
1994		
13.	Spectrophotometric determination of malathion in plants and vegetables. (Manas Kanti Deb, R.K. Mishra)	<i>Poll. Res.</i> , 13 (1), 63-67 (1994)
12.	Simple spectrophotometric determination of phenol in industrial waste waters. (S. Chakravarty, Manas Kanti Deb and R.K. Mishra)	<i>Asian J. Chem.</i> , 6 (4), 766-770 (1994) Impact Factor: 0.153
1993		
11.	Spectrophotometric determination of some organophosphorus pesticides in environmental samples. (S. Chakravarty, Manas Kanti Deb and R.K. Mishra)	<i>Chem. Environ. Res.</i> , 1 (3), 341-344 (1993)
10.	Determination of tin in environmental samples. (S. Chakravarty, Manas Kanti Deb and R.K. Mishra)	<i>Chem. Environ. Res.</i> , 2 (3&4), 309-315 (1993)
09.	Hydroxyamidines as new extracting reagent for spectrophotometric determination of cadmium with 4-(2-pyridylazo)-naphthol in industrial effluents, coal and fly ash. (S. Chakravarty, Manas Kanti Deb and R.K. Mishra)	<i>J. Assoc. Offic. Anal. Chem.</i> , USA 76 , 604-607 (1993) Impact Factor 1.046
08.	Extractive spectrophotometric determination of arsenic at trace level in environmental samples. (S. Chakravarty, Manas Kanti Deb and R.K. Mishra)	<i>Chem. Environ. Res.</i> , 2 (1&2), 109-113 (1993)
1992		
07.	Spectrophotometric determination of osmium at the ppb level using pyrocatechol and hydroxyamidine. (Manas Kanti Deb, R.K. Mishra)	<i>Intern. J. Environ. Anal. Chem.</i> , UK © <i>Taylor & Francis</i> 48 (3), 151-156 (1992) Impact Factor 1.026
1991		
06.	Extraction of vanadium(V) with hydroxyamidine in the presence of adductants and its spectrophotometric determination with diphenylcarbazine. (Manas Kanti Deb, K.S. Patel and R.K. Mishra)	<i>Intern. J. Environ. Anal. Chem.</i> , UK © <i>Taylor & Francis</i> 43 , 209-217 (1991) Impact Factor 1.026
05.	Extraction-spectrophotometric determination of bismuth(III) using iodide and amidines: application to soil and ore samples.	<i>J. Indian Chem. Soc.</i> , © <i>Ind Chem Soc</i> , 68 , 181 (1991) Impact

	Manas Kanti Deb, R.K. Mishra)	Factor: 0.34
04.	Sensitive spectrophotometric determination of osmium with pyrocatechol and hydroxyamidine. (Manas Kanti Deb, N. Mishra, K.S. Patel and R.K. Mishra)	<i>The Analyst</i> , UK 116 , 323-325 (1991) Impact Factor 3.761 Immediacy index 1.032 – highest of any general analytical chemistry journal
1990		
03.	Sensitive spectrophotometric determination of vanadium in environmental samples at ppb level. (C. Agarwal, Manas Kanti Deb and R.K. Mishra)	<i>Anal. Lett.</i> , USA 23 (11), 2063-2075 (1990) Impact Factor 1.362
02.	Spectrophotometric determination of chromium (VI) as azo dye in environmental samples. (Manas Kanti Deb, K.S. Patel and R.K. Mishra)	<i>Asian Environ.</i> , 12 (1), 51-59 (1990) Impact Factor 0.452
01.	Extraction-spectrophotometric determination of arsenic in environmental samples with iodide and amidine. (Manas Kanti Deb, C. Agarwal, K.S. Patel and R.K. Mishra)	<i>Intern. J. Environ. Anal. Chem.</i> , UK © Taylor & Francis 39 , 417-419 (1990) Impact Factor 1.886

Research Guidance by Dr. Manas Kanti Deb

S. No.	Name of the Candidate	Title of the work	Degree awarded/ Year	University Registration no.
1.	Dr. Manisha Thakur (Associate Professor, CSIT, Bhilai)	Studies on Dust Fall Out in Raipur, M.P.	Ph.D./ 2000	/Acad./Research/ 1997, dt.xx-xx-1997. Notification No./Conf./Ph.D./R.K.S./ 930/2000 , dt. 06-09- 2000
2.	Dr. Ravi Banjare (Asst. Professor, Govt. College, Kanker)	Analytical Studies on Some Heavy Metals in Samples of Different Origin	Ph.D./ 2005	/Acad./Research/ 2002, dt.27-03-2002
3.	Dr. Pushpa Khande	Applications of imidoyl derivatives in the determination of platinum group elements (PGEs)	Ph.D./ 2006	1981/Acad./Research/20 03, dt. 21-02-2003
4.	Dr. Santosh Kumar (Scientist 'B', FSL, CG Govt, Raipur; Post Doctoral Researcher, Sapporo Univ, Japan; with Prof. Kawamura; 2012-13)	Chemical characterization of size-segregated aerosols in the lower troposphere in Chhattisgarh region	Ph.D. / 2009	4724/Acad./Research/ 2006, dt. 04-04-2006
5.	Dr. Shilpa Sharma (Asstt. Professor, Rungta Engg. College, Raipur)	Analytical applications of metal nanoparticles in the determination of environmental pollutants	Ph.D. / 2010	672/Acad./Research/200 7, dt. 18-09-2007
6.	Dr. Devsharan Verma (Scientist 'B', CGWB, Govt. of India)	Optimization of analytical parameters for trace analysis of environmental pollutants based on Fourier transform infrared spectroscopy	Ph.D./ 2010	2992/Acad./Research/20 08, dt. 27-06-2007
7.	Dr. Dhananjay Deshmukh (Doctoral Researcher, Sapporo Univ, Japan; with Prof. Kawamura; 2013)	Studies on distribution of low molecular weight organic acids in size-segregated aerosols	Ph.D./ 2013 19-12-2012	7515/Acad./Research/20 09, dt. 24-09-2009
8.	Dr. Jolly Pal (Asstt. Prof., Daga Girls' College, Raipur)	Studies on applications of zerovalent metal nanoparticles (ZVNp) in the removal of organic pollutants	Ph.D./ 2013 14-08-2013	7515/Acad./Research/20 09, dt. 24-09-2009
9.	Jayant Nirmalkar (PDF, IISER, Bhopal)	Anhydrosugar and sugar alcohols as markers for biomass burning	Ph.D./ 2016 15-01-2016	8987/Acad./Research/20 12, dt. 29-11-2012 (Regn dt: 20-07-2011)

10.	Bhupendra Sen (JRF NET, CSIR)	Studies on some multiatomic metal oxy ions utilizing micro-extraction and subsequent Fourier transform infrared spectroscopic analysis	Ph.D./ work in progress	- 12947/Acad./Research/2013, dt. 24-12-2013 (Regn dt: 23-07-2013)
11.	Swati Chandrawanshi	Analytical studies on some ionic species employing attenuated total reflectance (ATR)-Fourier transform infrared (FTIR) technique	Ph.D./work in progress	12947/Acad./Research/2013, dt. 24-12-2013 (Regn dt: 25-07-2012)
12.	Swapnil Tiwari	Studies on analytical parameters of some food additives and some toxic adulterants present in food stuffs employing Fourier Transform Infrared spectroscopic technique	Ph.D./work in progress	5970/Acad./Ph.D./2015/9, dt. 30-09-2014
13.	Ramsingh Kurrey	Fourier transform infrared spectroscopy of some selected surface active agents and their quantitative analysis	Ph.D./work in progress	5970/Acad./Ph.D./2015/3, dt. 30-09-2014
14.	Mithlesh	Molecular characterization of size-segregated biogenic secondary organic aerosol tracers in eastern central India	Ph.D./work in progress	2091/06/Acad./Ph.D./2016, dt. 26-08-2016 (12-07-2016)
15.	Mr. Birendra Kumar (Asstt. Prof., Govt. College, Kawardha)	Studies on mass and size distribution of particulate matters in ambient air of Raipur city	M. Phil./2008	-
16.	Ms. Mousami Jangde (Asstt. Prof., Govt. College, Mahasamund)	Synthesis and applications of metal nanoparticles	M. Phil./2009, June	-
17.	Ms. Anjali Tawari	Analytical Studies on Rare earth elements with special reference to Gadolinium	M. Phil./2009, June	-
18.	Ms. Tamanna Bano	Determination of Samarium at trace level in geological matrices	M. Phil./2010	-
19.	Mr. Bhupendra Sen	Adsorption studies of iron nanoparticles on the removal of phenolic compounds	M. Phil./2011	-
20.	Ms. Likheswari Mithlesh	Studies on the removal of chromium(VI) by metal	M. Phil./2012	-

21.	Ms. Swati Chandrawanshi	nanoparticles Studies on visual detection of mercury employing metal nanoparticles	M. Phil./2013	-
22.	Ms. Swapnil Tiwari	Studies on some selected common food adulterants employing Fourier transform infrared spectroscopy	M.Phil./2014	-
23.	Mithlesh	Mass loading of size-segregated atmospheric particulate matter over central region of Chhattisgarh India during winter	M.Phil./2015	
24.	Keshaw P Rajhans	Studies on composition and sources of indoor organic aerosols in Raipur region	Ph.D. [Env Sci; Co-Supervisor] Work in progress	6044/Acad./Ph.D./2015/03, dt. 21-10-2015 (27-10-2014)
25.	Ms. Shobhna Ramteke	Characterization and source apportionment of ambient organic aerosols in Raipur region	Ph.D. [Env Sci; Co-Supervisor] Work in progress	6044/Acad./Ph.D./2015/02, dt. 21-10-2015 (27-10-2014)
26.	Suryakant Chakradhari	Studies on combustion characteristics of biomass	Ph.D. [Env Sci; Co-Supervisor]	2144/Acad./Ph.D./2016/1, 30-08-2016 (09.09.2015)
27.	P.K. Sahu	Studies on energy potential of agricultural wastes	Ph.D. [Env Sci; Co-Supervisor]	2144/Acad./Ph.D./2016/2, 30-08-2016 (09.09.2015)
28.	Yaman Kumar Sahu	Studies of energy potential of aquatic plants	Ph.D. [Chemistry; Co-Supervisor]	2093/Acad./Ph.D./2016/09, dt. 26-08-2016 (12-07-2016)

Details of Projects Completed/Ongoing by Dr. Manas Kanti Deb (as PI unless stated otherwise)

S.No.	Title	Agency	Period	Grant/Amount Mobilized (INR, 100 thousands)	API Score
01	Biogeo-environmental	UGC, New	2015-2020	128.0	

	Pathways, Nanotechnology and Associated Climate Change Involved with Pollutants (Dy Coordinator; UGC-SAP-DRS- II)	Delhi	(Sanctioned June 7, 2015)		
02	Optimization of analytical parameters for some food additives and toxic adulterants employing DRS/ATR-FTIR spectroscopic technique	CCOST, Raipur	2016-18	5.0	
03	A Novel Hyphenated Single Drop Micro Extraction - Diffuse and Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy (SDME- DRS/ATR-FTIR) Technique for Analysis of Multiatomic Metaloxo Anions	SERB, DST, New Delhi	Sanction letter no. SR/S1/IC/005/2012 2012-2015	33.2	20
04	Source Apportionment of Classified Atmospheric Dust Fractions using Selected Receptor Models (Co-PI)	DST, New Delhi	2010-2013	51.0	20
05	Studies on dust fall-out in Raipur	MPCOST, Bhopal	1995-1998	1.0	10

	city				
06	Toxic trace elements in the airborne particulate matters	UGC, New Delhi	1998-2000	0.30	10
07	Determination of platinum group elements (PGEs) in soil, vegetation and airborne dust particulates	CCOST, Raipur	2003-2005	1.70	10
08	Ion-exchange mechanism in aerosols of lower tropospheric atmosphere in Chhattisgarh region	ISRO, Bengaluru	2004-2007 (ext. 2008)	8.47	15
09	Rapid and Simultaneous Analysis of Acidifying Sulphate and Nitrate Species in Soil and Aerosol by DRS-FTIR Technique Using KBr Substrate	UGC, New Delhi	2007-2009	1.65	10