


STANDARD TEMPLATE OF FACULTY PROFILE FOR UPLOADING OF UNIVERSITY WEBSITE			
Title	First Name	Last Name	
	Kiranmay	Sarma	
Designation	Professor		
School/ Department Name	University School of Environment Management		
Address	USEM Room No A03 GGS Indraprastha University Dwarka Sector 16C New Delhi 110078		
Phone No.	Office	+91-11-25302377	
	Residence	Optional	
	Mobile	Optional	
Email	kiranmay@ipu.ac.in	kiranmayipu@gmail.com	
Web page (If any)			
Subjects Taught	(A). M.Sc. (Environment Management)	1. EM 605: Environmental Geosciences & Natural Disasters 2. EM 607: Fundamentals of Geoinformatics 3. EM 651: Geoinformatics Lab 4. EMGE 624: Geospatial Technology for Environment Management	
	(B). M.Sc. (Biodiversity and Conservation)	1. EMBC 608: Geoinformatics and Biodiversity Assessment 2. Geoinformatics Lab	
	(C). M.Sc. (Natural Resource Management)	1. EMNRM 605: Earth, Water Resources and Natural Disasters 2. EMNRM 609: Elements of Geoinformatics 3. EMNRM 653: Geoinformatics Lab	
	(D). PhD	1. PES 905: Basic and Applied Remote Sensing and GIS	
Areas of Interest/ Specialization	Geospatial Technology Applications in Environment and Disaster Management		
Experience (in years)		Total	
	Industry	-	
	Teaching	16	
	Research	23	
Educational Qualifications	UG	B.Sc. from Gauhati University, Guwahati	
	PG	i. Geoinformation Science and Earth Observation from ITC, Enschede, The Netherlands ii. Geography from Gauhati University, Guwahati	
	Doctorate	Coal mining and its impact on environment of Nokrek Biosphere Reserve of Meghalaya from North-Eastern Hill University, Shillong	
	Any other	-	
Research	1. Tyagi, S. and Sarma, K. 2021. Seasonal variability, index modeling		

Publications in Journals (last 5 years)

- and spatiotemporal profiling of groundwater usability in semi-urban region of western Uttar Pradesh, India. *Environmental Earth Sciences*. 80:761 (**Scopus**). <https://doi.org/10.1007/s12665-021-10018-9>.
2. Das, P.; Behera, M.D.; Barik, S.K.; Mudi, S.; Jagadish, B.; Sarkar, S.; Joshi, S.R.; Adhikari, D.; Behera, S.K.; Sarma, K.; Srivastava, P.K. and Chauhan, P.S. 2021. Shifting cultivation induced burn area dynamics using ensemble approach in Northeast India. *Trees, Forests and People*. Vol. 7. pp. 1-10. (**Scopus**). <https://doi.org/10.1016/j.tfp.2021.100183>
 3. Shimrah, T.; Lungleng, P.; Devi, A.H.; Sarma, K.; Varah, F. and Khuman, Y.S. 2021. Spatio-temporal assessment on land use and land cover (LULC) and forest fragmentation in shifting agroecosystem landscape in Ukhrul district of Manipur, Northeast India. *Environmental Monitoring and Assessment*. 194:14. pp. 1-14. (**Scopus**). <https://doi.org/10.1007/s10661-021-09548-3>.
 4. Kaur, M.; Das, S.K. and Sarma, K. 2021. Water quality assessment of Tal Chhapar Wildlife Sanctuary using water quality index (CCME WQI). *Acta Ecologica Sinica*. (**Scopus**). <https://doi.org/10.1016/j.chnaes.2021.09.017>.
 5. Mir, A.H.; Sarma, K. and Upadhaya, K. 2021. Assessing the effectiveness of community managed forests for plant diversity conservation in Meghalaya, Northeast India. *Plant Diversity*. (**Scopus**). <https://doi.org/10.1016/j.pld.2021.11.010>
 6. Tyagi, S. and Sarma, K. 2021. Expounding major ions chemistry of groundwater with significant controlling factors in a suburban district of Uttar Pradesh, India. *Journal of Earth System Science*. 130:169. (**Scopus**). <https://doi.org/10.1007/s12040-021-01629-8>.
 7. Joshi, M.; Das, S.K. and Sarma, K. 2021. Taxonomy, population status and ecology of Indian desert monitor lizard *Varanus griseus* koniecznyi Mertens 1954 in the Thar desert of Rajasthan. *Saudi Journal of Biological Sciences*. Vol. 28. pp. 4542-4552. (**Scopus**). <https://doi.org/10.1016/j.sjbs.2021.04.055>.
 8. Barbhuyan, H.S.A.; Mir, A.H.; Chaudhury, G.; Sarma, K. and Upadhaya, K. 2021. Changes in species composition and litter dynamics along a fragment size gradient in subtropical broadleaved forests of Meghalaya, northeast India. *Applied Ecology and Environmental Research*. Vol. 19(4). pp. 2941-2962. (**Scopus**). http://dx.doi.org/10.15666/aeer/1904_29412962.
 9. Vaid, M.; Sarma, K. and Gupta, A. 2021. Microplastic pollution in aquatic environments with special emphasis on riverine systems: Current understanding and way forward. *Journal of Environmental Management*. (**Scopus**). <https://doi.org/10.1016/j.jenvman.2021.112860>.
 10. Sarma, K. and Kalita, K. 2021. Climate Change Impacts on Forests and the Livelihoods of Tribal People of Northeast India. *Disaster Advances*. Vol. 14 (10) (**Scopus**). pp. 40-45.
 11. Shylla, L.; Barik, S.K.; Behera, M.D.; Singh, H.; Adhikari, D.; Upadhyay, A.; Thapa, N.; Sarma, K. and Joshi, S.R. 2021. Impact of heavy metals on water quality and indigenous *Bacillus* spp. prevalent in rat-hole

coal mines. *3Biotech*. Vol. 11:253. **(Scopus)**.
<https://doi.org/10.1007/s13205-021-02808-6>.

12. Mir, A.H.; Chaudhury, G.; Barbhuyan, H.S.H.; Sarma, K. and Upadhaya, K. 2021. Impact of disturbance on community structure, biomass and carbon stock in montane evergreen forests of Meghalaya, northeast India. *Carbon Management*. **(Scopus)**.
<https://doi.org/10.1080/17583004.2021.1899752>.
13. Borah, B.C.; Sarkar, P.; Sarma, K. and Bhattacharya, A. 2021. Status of human-elephant conflict in Rani-Garbhanga area of Assam, India. *NeBio*. Vol. 12(1). pp. 5-13. **(Web of Science Group)**.
14. Sarma, P.K.; Sarma, K.; Das, J.K.; Das J.P. and Talukdar, B.K. 2021. Tracing out of elephant corridors and landscape dynamics of eastern Assam using Geospatial tools: A case study in Tinsukia district of Assam, India. *Ecology, Environment and Conservation*. Vol. 27. pp. 178-186. **(Web of Science Group)**.
15. Babbar, D.; Areendran, G.; Sahana, M.; Sarma, K.; Raj, K. and Sivadas, A. 2020. Assessment and prediction of carbon sequestration using Markov chain and InVEST model in Sariska Tiger Reserve, India. *Journal of Cleaner Production*. Vol. 278. **(Scopus)**.
<https://doi.org/10.1016/j.jclepro.2020.123333>.
16. Kumar, A.; Mishra, R.K. and Sarma, K. 2020. Mapping spatial distribution of traffic induced criteria pollutants and associated health risks using kriging interpolation tool in Delhi. *Journal of Transport & Health*. Vol. 18. **(Scopus)**.
<https://doi.org/10.1016/j.jth.2020.100879>.
17. Tyagi, S., and Sarma, K. 2020. Qualitative assessment, geochemical characterization and corrosion-scaling potential of groundwater resources in Ghaziabad district of Uttar Pradesh, India. *Groundwater for Sustainable Development*. Vol. 10. 100370. pp. 1-14. **(Scopus)**.
18. Yadav, N.; Areendran, G.; Sarma, K.; Raj, K. and Sahana, M. 2020. Susceptibility assessment of human-leopard conflict in Aravalli landscape of Haryana using geospatial techniques. *Modeling Earth Systems and Environment*. **(Web of Science Group)**.
<https://doi.org/10.1007/s40808-020-00858-y>.
19. Sarma, K.; Sarma, P.K.; Kalita, K. and Sarma, K. 2020. A holistic analysis of human-elephant conflicts in Karbi Anglong district of Assam. *NeBio*. Vol. 11(3). pp. 195-200. **(Web of Science Group)**.
20. Kaur, M.; Joshi, M.; Sarma, K.; Asrafuzzaman, S. and Das, S.K. 2020. Population status, habitat suitability and threat assessment of Indian spiny-tailed lizard *Saara hardwickii* (Gray, 1827) in the Thar desert of Rajasthan. *Journal of Wildlife and Biodiversity*. Vol 4(3). pp. 80-90. **(Web of Science Group)**. DOI:0.22120/jwb.2020.122080.1120.
21. Kaur, M.; Joshi, P.; Sarma, K. and Das, S.K. 2020. Assessment of plant community structure in Tal Chhapar Wildlife Sanctuary, Rajasthan, India. *Species*. Vol. 21(Issue 67). pp. 126-139.
22. Sarma, H.S. and Sarma, K. 2020. Quantitative assessment and spatial distribution of avian fauna of Okhla Bird Sanctuary of Delhi NCR. *Environment & We: An International Journal of Science and Technology*. Vol. 15. pp. 73-80.
23. Kaur, M.; Das, S.K. and Sarma, K. 2020. A study on the selected invertebrate fauna in Tal Chhapar Wildlife Sanctuary of Churu

	<p>district, Rajasthan, India. <i>Research Journal of Agriculture and Forestry Science</i>. Vol. 8(1). pp. 57-61.</p> <p>24. Baruah, L.; Joshi, V. and Sarma, K. 2020. Land use mapping and time series analysis of coal mining area in Makum Coalfield, Assam, India. <i>Environment & We: An International Journal of Science and Technology</i>. Vol. 15. pp. 61-71.</p> <p>25. Singh, S. and Sarma, K. 2020. Mapping surface soil characteristics of barren land by using Geospatial Technology in NCT of Delhi. <i>Environment & We: An International Journal of Science and Technology</i>. Vol. 15. pp. 15-27.</p> <p>26. Kumari, M.; Sarma, K. and Sharma, R. 2019. Using Moran's I and GIS to study the spatial pattern of land surface temperature in relation to land use/cover around a thermal power plant in Singrauli district, Madhya Pradesh, India. <i>Remote Sensing Applications: Society and Environment</i>. Vol. 15. (100239) pp. 1-6. (Scopus).</p> <p>27. Tyagi, C.; Gupta, N.C.; Soni, V.K. and Sarma, K. 2019. Seasonal variation of black carbon emission in urban Delhi, India. <i>Environmental Claims Journal</i>. DOI: 10.1080/10406026.2019.1699723. pp. 1-11. (Scopus).</p> <p>28. Shimrah, T.; Sarma, K.; Varga, O.G.; Szilard, S. 2019. Quantitative assessment of landscape transformation using earth observation datasets in Shirui Hill of Manipur, India. <i>Remote Sensing Applications: Society and Environment</i>. Vol. 15 (100237). pp. 1-6. (Scopus).</p> <p>29. Joshi, M.; Kaur, M.; Das, S.K. and Sarma, K. 2019. An assessment of threat to wildlife in the Thar desert of Rajasthan, India. <i>International Journal of Research and Analytical Reviews</i>. Vol. 6(2). pp. 463-473.</p> <p>30. Tyagi, S. and Sarma, K. 2018. Assessment of groundwater quality in different land uses in Ghaziabad district of Uttar Pradesh, India. <i>Environment & We: An International Journal of Science and Technology</i>. Vol. 13. pp. 99-117.</p> <p>31. Gupta, P. and Sarma, K. 2018. Spatial distribution of groundwater quality, depth and plant species diversity in National Capital Territory (NCT) of Delhi, India. <i>International Journal of Conservation Science</i>. Vol. 9 (2). pp. 351-360. (Scopus).</p> <p>32. Tyagi, C.; Gupta N.C. and Sarma, K. 2018. Carbonaceous Content Analysis of PM₁₀ Aerosols at Residential Suburb of Delhi, India. <i>Environment & We: An International Journal of Science and Technology</i>. Vol. 13. pp. 189-198.</p> <p>33. Kumari, M. and Sarma, K. 2018. Seasonal variation of ambient air quality under the impact of coal based thermal power plant emission around Sasan Ultra Mega Thermal Power Plant, Madhya Pradesh. <i>Indian Journal of Environmental Protection</i>. Vol. 38 (5). pp. 371-378. (Scopus).</p> <p>34. Tyagi, C.; Gupta, N.C. and Sarma, K. 2018. Measurement of short term pollution due to fire crackers episode during Diwali, 2016 and 2017 at residential suburb in Delhi. <i>Pollution Research</i>. Vol. 37(3). pp. 763-770. (Scopus).</p> <p>35. Tomar, S.; Kaur, A., Sarma, K. and Dangi, H.K. 2018. Fire Risk Assessment and Fire Hazard Zonation Mapping using GIS in South-</p>
--	---

	<p>West Division of Delhi. <i>Journal for Advanced Research in Applied Sciences</i>. Vol. 5 (3). pp. 213-220.</p> <p>36. Tyagi, C.; Gupta N.C. Sarma, K. and Pathak, U. 2018. Seasonal and Diurnal Variation of Black Carbon Aerosols over Delhi and their Interrelationship with PM_{2.5} and Meteorological Parameters. <i>Journal of Advanced Research in Alternative Energy, Environment and Ecology</i>. Vol. 5(4). pp. 29-32.</p> <p>37. Joshi, M.; Sarma, K. and Das S.K. 2017. Habitat Suitability Analysis of Indian Desert Monitor (<i>Varanus griseus koniecznyi</i> Mertens, 1954) in Thar Desert of Rajasthan Using Geo-spatial Technology. <i>International Journal of Zoological Research</i>. Vol 13(3). pp. 105-112. (Scopus).</p> <p>38. Kumari, M. and Sarma, K. 2017. Changing trends of land surface temperature in relation to land use/cover around thermal power plant in Singrauli district, Madhya Pradesh, India. <i>Spatial Information Research</i>. Vol. 25 (6). pp. 1-9. (Web of Science Group).</p> <p>39. Kumari, M.; Sarma, K., Sharma, R. and Karmakar, S. 2017. Quantitative estimation of Land Surface Temperature and its relationship with Land Use/Cover around Mahan Essar Thermal Power Plant in Singrauli District, Madhya Pradesh, India. <i>Indian Cartographer</i>. Vol. 37. pp. 387-393.</p> <p>40. Tomar, S.K.; Kaur, A.; Dangi, H.K.; Ghawana, T. and Sarma, K. 2017. Fire Risk Analysis Using Geospatial Approach and Mitigation Measures for South-West Delhi Delhi Fire Service, Delhi, India. <i>International Journal of Emerging Research in Management and Technology</i>. Vol. 6 (8). pp. 131-137.</p> <p>41. Kumari, M. and Sarma, K. 2017. Spatio–Temporal dynamics of land use/cover around a thermal power plant in Singrauli district, Madhya Pradesh, India. <i>Journal of Applied Geology and Geophysics</i>. Vol. 5(4). pp. 8-13.</p> <p>42. Tomar, S.; Kaur, A.; Dangi, H.K. and Sarma, K. 2016. Fire incident mapping and risk analysis-a case study of South-West division of Delhi. <i>Fire Engineer</i>. Vol. 41(4). pp. 21-34.</p> <p>43. Quareshi, S.; Sarma, K. and Garg, J.K. 2016. Monitoring dynamics of land use/ land cover changes of the river Yamuna in upper stretch using multi-temporal satellite data. <i>International Journal of Current Research</i>. Vol. 8(6). pp. 32988-33000.</p> <p>44. Eliza, K. and Sarma, K. 2016 Habitat Suitability Modelling for Koklass Pheasant Using Geospatial Technology in Churdhar Wildlife Sanctuary (H.P.) India. <i>International Journal of Scientific Research in Environmental Sciences</i>. Vol.4(4), pp. 0093-0101.</p> <p>45. Gupta, P. and Sarma K. 2016. Spatial distribution of various parameters in groundwater of Delhi, India. <i>Cogent Engineering</i>. Vol. 3. pp. 1-9. (Scopus).</p> <p>46. Mukherjee, A. and Sarma, K. 2016. Assessment of land use dynamics of Okhla Bird Sanctuary, Delhi using Geospatial Technology. <i>Journal of Biodiversity Management & Forestry</i>. Vol. 5 (1). pp. 1-4.</p>
Papers Published in Conference Proceedings (last 5	<p>1. Tyagi, S. and Sarma, K. (2021) Appraisal of groundwater quality based on toxic metal pollution in Loni block of Ghaziabad district, Uttar Pradesh, India</p>

years)	<p>In: Mishra, B.K.; Singh, C.S.; Gupta, V (eds.), Environment Health and Society. Academic Publication, Delhi-110090. pp.208-217.</p> <p>2. Sarma, K. and Kumari, M. 2019. Application of Geoinformatics in Climate Change (Unit 15, Block 4). MEV-024 Climate Change Assessment Tools. School of Interdisciplinary and Trans-disciplinary Studies. Indira Gandhi National Open University (IGNOU) eGyankosh Programme.</p> <p>3. Kumari, M.; Sarma, K., Sharma, R. and Karmakar, S. 2017. Quantitative estimation of Land Surface Temperature and its relationship with Land Use/Cover around Mahan Essar Thermal Power Plant in Singrauli District, Madhya Pradesh, India. Conference Proceedings: 37th INCA International Congress, Dehradun.</p> <p>4. Gautam, A.; Areendran, G.; Raj, K.; Singh, R.; Sarma, K. and Yadav, V. 2017. Forest cover change detection of Ranthambhore National Park, Rajasthan using Geospatial techniques. In: Kaushik, A.; Garg, JK.; Bhattacharya, P.; Gupta, NC.; Singh, R. and Joshi, V. (eds.), Climate Change, Resource Conservation and Sustainability Strategies. DBH Publishers and Distributors. New Delhi. pp. 75-80.</p> <p>5. Sharma, P.; Areendran, G.; Raj, K. and Sarma, K. 2017. Geothermal resources of North-Western Himalayan Sub Province, using Geospatial Technology. In: Kaushik, A.; Garg, JK.; Bhattacharya, P.; Gupta, NC.; Singh, R. and Joshi, V. (eds.), Climate Change, Resource Conservation and Sustainability Strategies. DBH Publishers and Distributors. New Delhi. pp. 120-127.</p> <p>6. Tyagi, S.; Areendran, G.; Raj, K.; Joshi, V. and Sarma, K. 2017. Site suitability of smart city: a case study of Gurgaon district, Haryana, using Geospatial technology. In: Kaushik, A.; Garg, JK.; Bhattacharya, P.; Gupta, NC.; Singh, R. and Joshi, V. (eds.), Climate Change, Resource Conservation and Sustainability Strategies. DBH Publishers and Distributors. New Delhi. pp. 159-166.</p> <p>7. Gupta, P. and Sarma, K. 2016. Groundwater scenario: globally and in NCT of Delhi. In: Sarma, S. and Bhargava, S. (eds.), Transforming India for Sustainable Development: Issues, Challenges & Opportunities. Radha Publications. New Delhi. pp. 285-291.</p> <p>8. Gupta, P. and Sarma, K. 2016. Evaluation of groundwater and soil quality for different land covers in Delhi, India. Proceedings: Sixth International Conference on Exploration, Assessment and Management of Groundwater Resources in Arid and Semi-Arid Regions. Faculty of Engineering and Technology. SRM University, Chennai, Tamil Nadu.</p> <p>9. Sarma, K. 2016. Land ownership system and status of forests of Garo and Khasi Hills Autonomous District Councils of Meghalaya. In: Upadhaya, K. (ed.), Biodiversity and Environmental Conservation. Discovery Publishing House Pvt. Ltd. New Delhi. pp.91-100.</p>
Books	Books authored/co-authored:

<p>Authored/Book Volume Chapters</p>	<p>1. Sarma, K. and Barik, S.K. 2015. <i>Impact Analysis of Coal Mining</i>. Global Book Organization. New Delhi 110059. ISBN 978-93-80570-62-4.</p> <p>2. Sarma, P.K. and Sarma, K. 2011. Spatial Modeling and Preparation of DSS for Conservation of Biological diversity in Barnadi Wildlife Sanctuary, Assam, India. Aaranyak. Guwahati.</p> <p>3. Sarma, K. 2010. <i>Spatio-temporal impact analysis of coal mining: a remote sensing and GIS based study in Jaintia Hills of Meghalaya, India</i>. LAP Lambert Academic Publishing AG & Co. KG. Saarbrucken, Germany. ISBN 978-3-8383-6658-6.</p> <p>4. Barik, S.K.; Sarma, K. and Tiwari, B.K. 2006. <i>Model microplan for Assam</i>. Regional Centre, National Afforestation and Eco-Development Board. North-Eastern Hill University, Shillong.</p> <p>5. Barik, S.K.; Sarma, K. and Tiwari, B.K. 2006. <i>Model microplan for Nagaland</i>. Regional Centre, National Afforestation and Eco-Development Board. North-Eastern Hill University. Shillong.</p> <p>6. Barik, S.K.; Sarma, K. and Tiwari, B.K. 2006. <i>Model microplan for Mizoram</i>. Regional Centre, National Afforestation and Eco-Development Board. North-Eastern Hill University, Shillong.</p> <p>7. Barik, S.K.; Pandey, H.N. Tiwari, B.K. and Sarma, K. 2006. <i>Coal mining in Meghalaya: An environment perspective</i>. Regional Centre, National Afforestation and Eco-Development Board. North-Eastern Hill University, Shillong.</p>		
<p>No. of Conferences</p>		<p>Attended</p>	<p>Organized</p>
	<p>National</p>	<p>45</p>	<p>-</p>
	<p>International</p>	<p>04</p>	<p>-</p>
<p>Research Guidance</p>		<p>PG</p>	<p>Doctorate</p>
	<p>Awarded</p>	<p>60</p>	<p>05</p>
	<p>Undergoing</p>	<p>04</p>	<p>06</p>
<p>Research Projects</p>	<p>Completed</p>	<p>07</p>	
	<p>Undergoing</p>	<p>03</p>	
<p>Awards & Distinctions</p>	<p>1. Awarded fellowship of DGIS-Ext Project under Netherland Fellowship Programme of The Netherland Government to carry out M.Sc. Programme at ITC, The Netherlands in the year 2004 (ref. no. KA 9699/SR 99250 dated 20th January 2004).</p> <p>2. Received Jawaharlal Nehru Memorial Fund Award for achieving 1st Position in B.Sc. level (letter no. PUB-202/(41-21)/93/1570 dated 13th December 1993).</p>		
<p>Administrative Assignments Handled</p>	<p>1. Coordinator of M.Sc. (Environment Management) since 04th April 2017 till date.</p> <p>2. Deputy Registrar (In-Charge of Secrecy Division) of Examination from 08th May 2017 to 28th July 2019.</p>		
<p>Association with Professional</p>	<p>Life Member:</p> <p>1. Indian Society of Remote Sensing</p>		

Bodies	2. Society for Environment and Development (India)
Any other Achievements	-