

Name: Dr. Kshetrimayum Krishnakanta Singh (PhD)

Designation: Associate Professor (AL 13A)

Department: Department of Geology

School: School of Environmental and Earth Sciences

Central University of Punjab

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Education:

Degree	University	Year	Subject	Division
PhD	University of Delhi	2009	Geology	NA
MSc	University of Pune	2003	Geology	I
BSc	University of Pune	2001	Geology	I

Work Experience:

Designation	University	Duration
Associate Professor	Central University of Punjab	2020 to till date
Assistant Professor	Assam (Central)University, Silchar	2009 to 2020
Research Scientist	University of Delhi	May 2009 to November 2009

Professional recognition/Awards/Scholarship:

DST-Young Scientist award under Fast Tract Scheme

Best international oral presentation award in 7th International science congress held in Bhutan 8-9 December, 2017.

UNESCO sponsored trainee on “Karst and Hydrogeochemistry” held during Nov.25 – Dec.7, 2012 at Chongqing, China sponsored by IRCK, UNESCO and Chinese Academy of Geological Sciences.

CSIR(UGC) NET, JRF- June 2003

UGC(NET) SRF- January 2006

Teaching Assignments:

10 years of PG & IPP course for PhD teaching at Department of Earth Sciences, Assam

University, Silchar with following courses:

Geomorphology, GIS & Remote Sensing & Practical

Geology, Tectonics and Mineral resources of NE India (open course)

Know your Planet

Hydrogeology & Practical

Environmental Geology & Geo-engineering & Practical

Ongoing PG teaching assignment at Central University of Punjab, Bathinda with following courses:

Oceanography and climatology

Research Project:

Completed UGC major project entitled “Evaluation of hydrochemical characteristics of surface and ground waters of the Manipur valley: a resource for quality management” Project cost: Rs.9,11,500/-

Area of specializations/Research interest:

Assessment of quality and quantity aspects of surface water and groundwater using, hydrogeochemical parameters, environmental isotopes, hydrogeology, remote sensing & GIS.

PhD awarded: 3, Submitted: 01

1. **Dr. Laishram Premananda Singh:** PhD title “A study on surface water and groundwater interaction of Manipur Valley, NE India” awarded on 29/08/2019.
2. **Dr. Heizule Hegeu:** PhD title “Assessment of hydrochemical characteristics of surface water and groundwater in and around Dimapur Town of Nagaland, NE India” awarded on 21/09/2019.
3. **Dr. Thokchom Laxmi Devi:** PhD title “A study on hydrochemical characteristics of surface water and groundwater of Thoubal District, Manipur, Northeast India” awarded on 19/10/2019.
4. **Miss. Khangembam Sharmila Devi** PhD title “Evaluation of hydrogeochemical characteristics of surface water and shallow groundwater in the Barak Valley of Assam, Northeast India” submitted on 08/02/2020.

MSc PG dissertation theses guided: 44

Publications:

1. Laishram P and **Kshetrimayum KS** (2019) Evaluation of hydrochemical data using multivariate statistical methods to elucidate heavy metals contamination in the shallow aquifers of the Manipur valley in the Indo-Myanmar Range. *Arabian Journal of Geosciences*, 12:337-347, **Springer**, doi:10.1007/s12517-019-4508-8.
2. Khangembam S and **Kshetrimayum KS** (2019) Evaluation of hydrogeochemical controlling factors and water quality index of water resources of the Barak valley of Assam, Northeast India. *Groundwater for Sustainable Development*, 8: 541-553, **Elsevier**; doi: 10.1016/j.gsd.2019.02.001.
3. Hegeu H and **Kshetrimayum KS** (2019) Hydrochemical characterization of groundwater in geomorphic units using graphical and multivariate statistical methods in the Dimapur valley, Northeast India. *Groundwater for Sustainable Development*, 8: 484-500, **Elsevier**, doi: 10.1016/j.gsd.2019.01.004.
4. Thokchom L and **Kshetrimayum KS** (2018) Assessment of quality contributing parameters using hydrochemistry and hydrogeology for irrigation in intermontane Manipur valley in northeast India. *Groundwater for Sustainable Development*, 8:667-679, **Elsevier**; doi: 10.1016/j.gsd.2018.03.003.
5. Laishram P and **Kshetrimayum KS** (2018) The state of wetlands of the Manipur valley in

Northeast India in view of changing time. *American Journal of Water Resources*, 6(1):9-14. (old UGC No. 41190, ISSN 2333 4819).

6. **Kshetrimayum KS** and Thokchom L (2017) Hydrogeochemical approach to evaluate the occurrence and source of salinization in the shallow aquifers of the eastern Imphal valley in the Indo-Myanmar Range of Northeastern India. *Environmental Earth Sciences*, 76:714-732; **Springer**; doi: 10.1007/s12665-017-7036-4.
7. **Kshetrimayum KS** and Hegeu H (2016) The state of toxicity and cause of elevated iron and manganese concentrations in surface water and groundwater around Naga Thrust of Assam-Arakan basin, Northeastern India. *Environmental Earth Sciences*, 75(7): 604-618, **Springer**; doi: 10.1007/s12665-016-5372-4.
8. Thien, Do, Giang, Huy, Nhan, Hai, Nhan, **Kshetrimayum KS**, Yen (2016) Classification of Engineering Soils in Quang Nam - Da Nang Coastal Plain, Viet Nam, *The 2nd conference on transport infrastructure with sustainable development*, Construction Publishing House, Vietnam, ISBN 978-604-82-1809-6. Pp. 327. September 17-18.
9. **Kshetrimayum KS** (2015) Hydrochemical evaluation of shallow groundwater aquifers: a case study from a semiarid Himalayan foothill river basin, northwest India. *Environmental Earth Sciences*, 74(10):7187-7200, **Springer**; doi: 10.1007/s12665-015-4697-8.
10. **Kshetrimayum KS** (2014) The state of ponds of Manipur valley. *Hydrol. Current. Res.*, 5(4): 65
11. Sorokhaibam S, Devi NB, **Kshetrimayum KS** (2014) A review of hydrogeological studies of Barak valley, Assam. *Hydrol. Current. Res.*, 5(4):111.
12. Singh LP and **Kshetrimayum KS** (2014) A geological peer review of intermontane Manipur valley, NE India for delineating major hydrogeological issues. *Hydrol. Current. Res.*, 5(4):113
13. **Kshetrimayum KS** (2013) Morphometric analysis and vertical electrical sounding in groundwater prospecting: a case study from a Himalayan foothill river basin, NW India. *International Journal of Geomatics and Geosciences*, 4(1):103-115.
14. **Kshetrimayum KS** and Bajpai VN (2012) Assessment of groundwater quality for irrigation use and evolution of hydrochemical facies in the Markanda river basin, Northwestern India. *Journal of Geological Society of India*, 79:189-198. **Springer**, doi: 10.1007/s12594-012-0024-0
15. **Kshetrimayum KS** and Bajpai VN (2012) Hydrogeomorphic classification and aquifer disposition in the Markanda river basin, Northwestern India - Hydrogeological approach. *Journal of Geological Society of India*, 79:391-403. **Springer**, doi:10.1007/s12594-012-0060-9
16. **Kshetrimayum KS** and Bajpai VN (2011) Establishment of missing stream link between the Markanda river and the Vedic Saraswati river in Haryana, India – geoelectrical resistivity approach. *Current Science, Indian Academy of Sciences*, 100(11):1719-1724.
17. **Kshetrimayum KS** and Bajpai VN (2011) Assessment of groundwater prospect in the Markanda river basin, northwest India: a morphometric approach. In: C.K. Jain et al., (Eds.), "Community based water resource management in Northeast India: lessons from global context" Allied Publishers Pvt. Ltd., New Delhi, ISBN: 978-81-8424-696-4, pp.107-116.

18. Kshetrimayum KS (2010) A preview to the Barak river basin, Northeast India. *Geognosy* 3rd issue, Department of Geology, G.C. College, Silchar, pp.61-64.

Research papers under review:

1. Khangembam S and **Kshetrimayum KS (2020)** Evaluation of hydrochemical facies along the flow path and geomorphic surfaces in a Quaternary alluvial plain of the Barak Valley of Northeast India. *Environmental Monitoring and Assessment*, **Springer** (Manuscript No. EMAS-D-19-02921).
2. **Kshetrimayum KS and Laishram P (2020)** Assessment of surface water and groundwater interaction using hydrogeology, 2 hydrochemical and isotopic constituents in the Imphal river basin, Northeast India. *Groundwater for Sustainable Development*, **Elsevier** (Manuscript No. GSD_2019_300).
3. Thokchom L and **Kshetrimayum KS (2020)** Delineation of source of elevated trace elements in surface water and groundwater in Quaternary aquifers of southeastern Imphal valley, Northeast India. *Sustainable Water Resources Management*, **Springer** (Manuscript No. SWAM-D-18-00186R1).

Articles reviewed Journals:

Environmental Earth Sciences, Springer
Water Resource Management, Springer
Applied Water Science, Springer
Sustainable Water Resources Management, Springer
Arabian Journal of Geoscience, Springer

Papers presented:

International

1. Paper entitled **“Elevation of toxic elements in groundwater: a menace for valleys of Northeast India”** is presented at 3rd information and networking event, EU-India water call, 2017-18 sponsored by European Union Commission, DST and IIT Guwahati held at Vivanta by Taj, Guwahati on 5th January, 2018.
2. Paper entitled **“Characterization of heavy metal contamination process using multivariate statistical methods in shallow aquifers of Imphal Valley, Northeast India”** is presented at 7th International Science Congress sponsored by Indian Science Community Association and Royal University of Bhutan held in Bhutan during 8 to 9 December, 2017.
3. Paper entitled **“The state of ponds in the Imphal valleys”** is presented at international conference on glo-cal crisis and environmental governance in northeast region of India” sponsored by Assam University and ONGC held during 11-13 November, 2013 at Assam University, Silchar.
4. Paper entitle **“appraisal of hydrogeological aspects of Markanda river basin in NW India”** is presented at international training on “Karst and Hydrogeochemistry” sponsored by IRCK, UNESCO and Chinese Academy of Geological Sciences held during Nov.25 – Dec.7, 2012 at Chongqing, China.
5. Paper entitled **“Assessment of groundwater prospect in the Markanda River basin, Northwest India: a morphometric approach”** is presented at international conference on community based water-resource management in Northeast India sponsored by Ministry of

Water Resources, GOI, PFI Foundation, South Asian Regional Development Gateway, ADPC, Bangkok held during 28-30 January, 2011 at Guwahati, India.

National

1. Paper entitled “Appraisal of hydrochemical parameters using multivariate statistical method: a case study from Manipur Valley, India” presented in The 105th Indian Science Congress, Earth System Science, during 16-20 March, 2018 at Manipur University, Canchipur.
2. Paper entitled “Applications of Remote Sensing and GIS in Relation to Natural Resources” presented in one day workshop on “Techniques in Biodiversity Researches” organized by Department of Ecology and Environmental Science, Assam University and supported by UGC (SAP-DRS) on 27th March, 2010 in Assam University, Silchar (Assam).

Workshop/Seminars attended:

1. Completed refresher course in “Earth science and natural resource management” conducted by UGC-HRDC, North-Eastern Hill University, Meghalaya, during 12/11/2018 to 02/12/2018.
2. 3rd information and networking event, EU-India water call, 2017-18 sponsored by European Union Commission, DST and IIT Guwahati held at Vivanta by Taj, Guwahati on 5th January, 2018.
3. 7th International Science Congress sponsored by Indian Science Community Association and Royal University of Bhutan held in Bhutan during 8 to 9 December, 2017.
4. Completed refresher course in “Climate Change” conducted by UGC-HRDC, University of Allahabad, Uttar Pradesh during 26 February – 17 March, 2016.
5. Two weeks Faculty Development Programme during 19-31 December, 2016 sponsored by NSTEDB, DST, Government of India, New Delhi and Assam University and certified by Entrepreneurship Development Institute of India.
6. International conference on glo-cal crisis and environmental governance in northeast region of India” sponsored by Assam University and ONGC held during 11-13 November, 2013 at Assam University, Silchar.
7. Attended orientation programme conducted by UGC-Academic Staff College-JNU, New Delhi during 8 October – 2 November, 2012.
8. International training on “Karst and Hydrogeochemistry” sponsored by IRCK, UNESCO and Chinese Academy of Geological Sciences held during Nov.25 – Dec.7, 2012 at Chongqing, China.
9. International conference on community based water-resource management in Northeast India sponsored by Ministry of Water Resources, GOI, PFI Foundation, South Asian Regional Development Gateway, ADPC, Bangkok held during 28-30 January, 2011 at Guwahati, India.
10. Seminar Cum Workshop on Remote Sensing and GIS Applications during February 7-13, 2011 supported by UGC (SAP-DRS) at Department of Ecology and Environmental Science, Assam University, Silchar.
11. Two days’ workshop for framing of syllabus for MSc in Applied Geology programme for the Department of Earth Science, Assam University, Silchar during 8th and 9th Feb, 2010 organized by Assam University.
12. Symposium on “Sustainable Development of Water Resources in Barak Valley”

organized by IQAC, Assam University, in collaboration with Institute of Northeast India Studies held on 24th March, 2010 at Assam University, Silchar (Assam).

13. One day workshop on “Techniques in Biodiversity Researches” organized by Department of Ecology and Environmental Science, Assam University and supported by UGC (SAP-DRS) on 27th March, 2010 in Assam University, Silchar (Assam).
14. National Workshop on “Principles and Applications of GC-MS and Atomic Absorption Spectrometry” supported by Department of Science and Technology (DST) and Central Science and Industrial Research (CSIR) during 06 – 09 September, 2010 at Assam University, Silchar (Assam).
15. Two days training programmed in “Design, Implementation, Operation, Monitoring and Maintenance of Rainwater Harvesting Systems in Urban Areas” during 21-22 December, 2006 organized by Central Ground Water Board, New Delhi.
16. 14th Biennial Convention of Indian Geological Congress and National Conference on “Earth Science: Its Relevance to Society” held on 2-4 December, 2005 at University of Delhi.
17. National Academy of Sciences, 71st Annual Session & National Symposium on “Coping with Natural Hazards” held on 5-7 October, 2001 at University of Pune, Pune.

Administrative responsibilities:

I have been members of various statutory bodies such as BPGS, BUGS, BRC, school board, DPC, DAC etc., a departmental coordinator of IQAC, placement cell, library, student counseling etc. Actively engaging in paper setting, evaluation, moderation, as external examiner, internal examiner etc.