

DR. CHITRASEN LAIRENJAM
Associate Professor

Department of
Agricultural Engineering,
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Area of Interest: Hydrology, Irrigation, Remote sensing and GIS applications, climate change.

Educational Qualifications

1	PhD	North Eastern Regional Institute of Science and Technology, (NERIST)	Thesis Topic: GIS Base Trend analysis of climatic parameters for North East India (Agril. Engg.)
2	M. Tech	Allahabad Agricultural Institute. Institute – deemed university	Soil and Water Engg/Irrigation and Drainage Engg (Agril. Engg)
3	B. Tech	North Eastern Regional Institute of Science and Technology, (NERIST)	Agricultural Engineering

Work Experience

Post held	Employer/ Organization	Period with dates
Associate Professor, Department of Agricultural Engineering, SAS, NU	Vice Chancellor, Nagaland University	4 th May 2023 – till date
Assistant Professor Dept. of Agricultural Engineering and Technology, SET, NU	Vice Chancellor, Nagaland University	12 th Nov 2012 -3 rd May 2023
Subject matter specialist (SMS) , Agricultural Engg.	Director, NRC on Mithun (ICAR). KVK Phek, Nagaland	10 th August 2006 -11 Nov 2012
Graduate Assistant	Central Agri .Uni Imphal NATP project	Jan – Jun 2003

PUBLICATIONS

Lairenjam, C and Hangshing, L. (2023). Drought assessment in Kohima, Nagaland, India, using the standardized precipitation index (SPI). *AIP Conference Proceedings* 2690, 020017 (2023) (scopus)

Lairenjam C., Hodam S., Bandyopadhyay A. and Bhadra A. (2017), Historical and temporal trends of climatic parameters in North East India, *Global NEST Journal*, 19 (4), 547-561. (Scopus)

Lairenjam, C., Singh, R.K., Huidrom, S. and Nongthombam, J. (2014) Economic analysis of integrated farming system using jalkund and micro-irrigation system to harvest rainwater in north east India. *International Journal of Agricultural Extension*. 02(03): 219-226. (scopus)

Lairenjam, C., Rocky, P., Murray M. Z., Shohe, L., and Kinimi, G. (2014). Land Use Land Cover of Kohima District, Nagaland: A Multi Temporal Analysis . Proceedings: National conference on Emerging Technology Trends in Agricultural, Nov 7th – 9th, 2014. 480-485.

Sherring, A., **Lairenjam, C** and Mishra, A. (2009). Conservation of energy for production of some rabi crops by adopting irrigation scheduling approach in Senapati district of Manipur state. *New Agriculturist*, 20(1,2): 63-69. (NAAS Rating)

Sherring, A., **Lairenjam, C** and Mishra, A. (2007). Audit of irrigation of Rabi crops in thoubal district of Manipur State. *Journal of soil and water conservation*, 6(3): 139-145. (NAAS Rating)

Pramod Chandra Dihingia, Laishram Kanta Singh, S. Roma Devi, Lydia Zimik, **Chitrasen Lairenjam**, Wungshim Zimik and Chetan Khobragade, (2021) Ergonomic assessment women tea plucker of small garden in Assam. *Indian Journal of Hill Farming special issue* 34. (UGC Care)

Pramod Chandra Dihingia, **Chitrasen Lairenjam**, Wungshim Zimik, Prasanna Kumar G.V. (2020). Ergonomic evaluation of tea leaf plucking in Assam. *Indian Journal of Hill Farming* 33(1): 92-99. (UGC Care)

Nongthombam, J., Joshikumar¹, K., Kumar¹, S., **Lairenjam, C.**, Oinam, G., Nongmaithem, L., Chowdhury, S. and Chaudhary K.P. (2020). Storage performance of horticultural crops in zero energy cool chamber: A case study in Mizoram, India. *E-planet*, 18 (2): 29-38. (NAAS Rating)

Hodam, S., **Lairenjam, C.**, Ngasepam, M., Marak, R.N., Sangma A. M., Jethro Ch. Marak, J. Ch., A. Bandyopadhyay., and A. Bhadra. (2018). Classification of districts of Arunachal Pradesh based on vulnerability to floods. *Journal of Indian water resource society*, **38(4): 20-32.** (NAAS Rating)

Kiba, L.G., Ningthoujam, B., **Lairenjam, C.**, Pongen, S. and Mor, N., Assessment of Energy Use and Productivity for Paddy Cultivation in North-East State of India – Dimapur District of Nagaland, *International Journal of pure & applied Bioscience* 6(5): 1162-1170 (2018). Doi: <http://dx.doi.org/10.18782/2320-7051.7021>. (NAAS Rating)

Zimik, W., **Lairenjam, C**.**, Dihingia, P. C., Malsawmtluanga, Vezhulu, Jamir, T., Khezhe, K. (2017). Optimization of Osmotic Dehydration Parameters of Oyster Mushroom (*Pleurotus ostreatus*) of Dimapur Cultivar. *Nagaland University Research Journal*, 10: 114-128. (Then UGC Care)

Zimik, W., Pothula, A. K., Singh, A. I., **Lairenjam, C.**, Khesoh, C., Basnett, S., and Chhetri, B. (2014). Drying Characteristics and Mathematical Modeling of Fresh and Blanched Fermented Bamboo Shoot (*Dendrocalamus hamiltonii*). *Nagaland University Research Journal*, 7: 208-223. (Then UGC Care)

Lairenjam, C., Bandyopadhyay A. Bhadra A. and Huidrom, S. (2016). Assessment of Probability Distribution of Rainfall of North East Region (NER) of India. *Journal of Research in Environmental and Earth Science*, 2(9): 12-18.

OTHER PUBLICATIONS.

Abstract Published :

Imyanglula, Kikon, L., Luwang, S. L., and **Lairenjam, C.** (2023). *Study of morphometric parameters for planning and management of Dzuza watershed, Nagaland, India* [Paper Presentation]. Strategies and Challenges in Agricultural and Life Science for Food Security and Sustainable Environment, Himachal Pradesh University Summer Hill, Shimla, H.P. India. p 139.

Kikon, L., Imyanglula., Luwang, S. L., and **Lairenjam, C.** (2023). *Land Use Land Cover Detection in Wokha District of Nagaland where Doyang Project is Located using Geospatial Techniques* [Paper Presentation]. Strategies and Challenges in Agricultural and Life Science for Food Security and Sustainable Environment, Himachal Pradesh University Summer Hill, Shimla, H.P. India. p 174.

Wungshim zimik , **Chitrasen Lairenjam***, Manda Devi Ningthoujam , Pramod Chandra Dihingia , Grace Nengzouzam , Merenungla Ozukum , Lamneithem Hangshing. 2023. Studies on Osmotic Dehydration of Beetroot (*Beta vulgaris*). at the International Conference on ‘Natural Farming for Revitalizing Environment and Resilient Agriculture (NF-RERA – 2023)’ during 17-19 March 2023 at College of Agriculture, Iroisemba, Central Agricultural University, Imphal, Manipur.

Chitrasen Lairenjam, Grace Nengzouzam*, Pramod Dihingia, Wungshim Zimik, and Manda Ningthoujam (2022). A review on rejuvenation of water bodies for enhanced water scarcity over Nagaland. national symposium cum workshop Springshed Management, organized by North Eastern Regional Institute of Water and Land Management (NERIWALM) , 18-19 Nov 2022, Tezpur.

Chitrasen Lairenjam, Pramod Chandra Dihingia, Manda Devi Ningthoujam*, Grace Nenzouzam, Visuto Khatso and Mulukhoto Khamo. 2022. Assessment of the potential rooftop rainwater harvesting - a case study for Nagaland. International Symposium on India@2047: Agriculture Engineering Perspective at 56th Annual Convention of the Indian Society of Agricultural Engineers (ISAE) on Agricultural Engineering Innovation for Global Food Security jointly organized by Indian Society of Agricultural Engineers (ISAE) New Delhi and Tamil Nadu Agricultural University Coimbatore during November 9th-11th 2022 at . TNAU, Coimbatore.

Technical bulletin

Author	Title	Journal	Remark
Jotish Nongthombam, Chitrasen Lairenjam and others	An Economical water harvesting and conveyance systems for NEH region in India	Central Agricultural University: Farm Magazine,	ISSN No. 2279-0454 April- July 2015 (Vol-5, No 2),pp 27-39
JotishNongthombam, Chitrasen Lairenjam and others	An introduction to gravity drip irrigation system: Its components and application in tough hilly terrain of Aizwal District, Mizoram in NEH region of India	Central Agricultural University: Farm Magazine,	ISSN No. 2279-0454 July- Sept 2015 (Vol-5, No 3),pp 31-33

Books/Institutional book/report Published

Author	Title	Year of Publication	Remark
Chitrasen Lairenjam, Arpan Sherring and Jotish Nongthonm bam	Energy Requirement and Utilization in Irrigation, Rabi crop production in Manipur, NEH Region in India. (80 pages)	2021	LAP LAMBERT Academic Publishing ISBN: 978-620-4-71416-5
R. K. Singh, Chitrasen Lairenjam Shivarani Huidrom	Water harvesting and Micro irrigation, (a project report on low cost water harvesting structure/ Julkund and installation of Micro irrigation system for developing integrated farming system construction of (IFS) approached at Phek district of Nagaland.	2013	National Research Centre on Mithun (ICAR) Publication
R. K. Singh, Chitrasen Lairenjam , Rinku Bharali, A. Dhali and C. Rajkhowa	Resource inventory of Phek district, Nagaland	October 2009	National Research Centre on Mithun (ICAR) Publication
R. K. Singh, Chitrasen Lairenjam , A. Dhali and C. Rajkhowa	Anthology of Newspaper publication of KVK-Phek	October 2009	National Research Centre on Mithun (ICAR) Publication

ON GOING PROJECT

PI- on the project on Internship under Indian Knowledge System, AICTE on “**Documentation of a traditional irrigation management system (TIMS) managed by tribal people under hill environment of Nagaland.**” 2023.

PROJECT UNDER TAKEN

CO-PI on the project” Irrigation with rainwater harvesting structure, treadle pump and micro irrigation systems”

Sponsoring agent : NABARD Dimapur (2009-2012)

Co-PI on the Project on Theme 5: Water Conservation and Harvesting Strategies

Indian Himalayan Central University Consortium (IHCUC)

Sponsoring agent: NITI-Aayog

Undergoing PhD SUPERVISION: 3 Nos

RESOURCE PERSON/LECTURE/TRAINING DELIVERED: 15 NOS

Farmers training: 40 No (approx.) (KVK)

DETAILS OF PROFESSIONAL COURSE / TRAINING ETC.

AICTE Training and Learning (ATAL) Academy online FDP on “Energy Engineering” from 21st - 25th September 2020 at North eastern regional Institute of Science and Technology Nirjuli Arunachal Pradesh , sponsored by All India Council for Technical Education(AICTE)

One week online Faculty Development Programme on “Energy and Environment: conversion, generation, storage and efficient utilization” on 24th -28th August 2020, organized by Department of Electrical Engineering and Civil Engineering, North eastern regional Institute of Science and Technology, Nirjuli Arunachal Pradesh.

Online course on “IIRS-NESAC Remote Sensing and GIS-Technological Advances and Applications” conducted by Indian Institute of Remote Sensing (IIRS), during April 29 to 10th May 2019, and NESAC, organized by IIRS, NESAC, ISRO and GOI.

Faculty Development programme from 14-25 October 2019 on “ Climate Change on water resource” organized by by Department of Agricultural Engineering, North eastern regional Institute of Science and Technology, Nirjuli, Arunachal Pradesh, sponsored by All India Council for Technical Education(AICTE)

Winter School (21 days) on “ Real time Irrigation Management using Sensor Networks, Decision Support system (DSS) and Electronic controls for precision agriculture in Vertisols” during 1st to 21st December 2016, organised by ICAR-Central Institute of Agricultural Engineering, Bhopal, Madhya Pradesh and sponsored by Indian council of Agricultural Research.

24th Orientation programme from 19th August to 16th September 2014, organized by Academic Staff college, Manipur University and sponsor by University Grant Commission.

One day orientation programme on “ Use of Automatic Weather station and its maintenance” on 1st

June 2011 at Central Research Institute for Dryland Agriculture, Hyderabad.

HRD-focused training programme on “Recent Advances in Agroforestry and its role in Natural Resource Management in the North Eastern Region” at Central Inland Fisheries Research Institute, Regional Center Guwahati and jointly organized by Zonal Project Directorate, Zone-III, Umiam, Meghalaya and National Research Center for Agroforestry, Jhanshi, MP held at Central Inland Fisheries Research Institute, Regional Center, Guwahati during August 23- 25, 2011

GIS Training programme from 29th June to 01 July 2010 on “Introduction to ArcGIS 9.3.x at North eastern regional Institute of Science and Technology, Nirjuli, Arunachal Pradesh, sponsored and organized by ESRI, New Delhi.

Winter School (21 days) on “Remote sensing and GIS application in Soil, Land and Agriculture” during 9th February to 1st March 2009, organised by National Bureau of Soil Survey and Land use planning, Nagpur, Maharashtra and sponsored by Indian Council of Agricultural Research.

International Training from 12th to 13th May 2002 on General Agriculture and Allied field at AGRI-FORESTRY TRAINING CENTER MYANMAR, organized by Japan OISCA International and Myanmar Agriculture Service, Govt. of Myanmar.

Practical Training in Agriculture from 25th May to 17th July 2000 at the trainer’s Training Center, ICAR-Central Institute of Agricultural Engineering, Bhopal, Madhya Pradesh

Short term Training during 9-10 June 1999 on “Keep our Water Resource Clean” organized by Department of Agricultural Engineering, North Eastern Regional Institute of Science and Technology, Nirjuli, Arunachal Pradesh, sponsored by Ministry of Environment and Forest, New Delhi.

Course on Entrepreneurship Awareness Programme from 14th Feb – 20th Feb, 2001 at NSIC TECHNICAL SERVICES EXTENSION CENTRE, Industrial Estate, Bamunimaidan, Guwahati organized by THE NATIONAL SMALL INDUSTRIES CORPORATION LTD.

WORKSHOP/ CONFERENCE/ SEMINAR ETC.

Attended and presented a paper at the national symposium cum workshop Springshed Management, organized by North Eastern Regional Institute of Water and Land Management (NERIWALM) during 18-19 November 2022 at NERIWA

Attended online and presented a paper at the International Symposium on India@2047: Agriculture Engineering Perspective at 56th Annual Convention of the Indian Society of Agricultural Engineers (ISAE) on Agricultural Engineering Innovation for Global Food Security jointly organized by Indian Society of Agricultural Engineers (ISAE) New Delhi and Tamil Nadu Agricultural University Coimbatore during November 9th-11th 2022 at TNAU, Coimbatore.

Attended an IP Awareness/Training program under NATIONAL INTELLECTUAL PROPERTY AWARENESS MISSION on September 13, 2022 organized by Intellectual Property Office, India.

Participated in the webinar “Improving research writing using Grammarly” held on 30th of March 2022 organised by Central Library, Nagaland University, in collaboration with Bridge People.

Attended the 5-day live workshop on Google Cloud Platform conducted by Turnip Innovations and Facilitated by Dr. Rahul Kapoor from 22nd to 26th June, 2021.

Attended a workshop on ANDROID APPS DEVELOPMENT at SET, NAGALAND UNIVERSITY of TECHTRON '17 in association with Techniche-2017,IIT- Guwahati organized by TechTron Technologies.

Participated in the 105th Indian Science Congress held at Manipur University, Imphal from March 16 to 20 of 2018 organized by THE INDIAN SCIENCE CONGRESS ASSOCIATION,14, Dr. Bireswari Guha Street, Kolkata-700017.

Participated in the HRD-focused training programme on “Recent advances in Agroforestry and its role in Natural Resource Management in the North-Eastern Region”for KVK personal jointly organized by Zonal Project Directorate,Zone-III,Umiam,Meghalaya and National Research Centre for Agroforestry,Jhansi,MP held at Central Inland Fisheries Research Institute,Regional Centre,Guwahati during August 23-25,2011.

Participated one day orientation programme on “Use of Automatic Weather Stations and its Maintenance” conducted at CENTRAL RESEARCH INSTITUTE OF DRYLAND AGRICULTURE,Hyderabad,2011.

Attended a GIS training program on Introduction to ArcGIS 9.3.x from 29 June 2010 to 1st July,2010 at New Delhi, 2010.

PROFESSIONAL SOCIETY

1. Lifetime member *INDIAN SCIENCE CONGRESS*

2. Lifetime member *INDIAN SOCIETY OF AGRICULTURAL ENGINEERING.*

ACTING AS VICE PRESIDENT OF THE NORTH EAST CHAPTER (NAGALAND SECTOR)

EXTRA CURRICULUM ACTIVITIES

1. National Service Scheme (NSS)

2. Participated in ICAR Zonal Tournament (Eastern Zone) 2006-2007 held at the central Inland Fisheries Research Institute, Baracpore from May 29th to June 2007