THIYAM JENNIL

🌐 https://www.linkedin.com/in/jennil-thiyam-537399182//

EDUCATION

Indian Institute of Technology Guwahati, India   *Jan 2018-June-2023*
PhD, Center for Linguistic Science and Technology

NIT Manipur, India   *July 2015 - May 2017*
Master of Technology, Computer Science and Engineering,
CGPA: 8.76/10 (89.6%)

NIT Manipur, India   *July 2011 - June 2015*
Bachelor of Technology, Computer Science and Engineering,
CGPA: 8.8/10 (89.2%)

RESEARCH AREA

- **Machine learning**
- **Transfer Learning**
- **Computer vision**
- **OCR (Optical Character Recognition)**
- **Generative adversarial networks**
- **Image classification and segmentation**
- **Multimodal machine learning**
- **Reinforcement learning**
- **Image caption generation**

PUBLICATIONS

Journals

- **Jennil Thiyam, Sanasam Ranbir Singh, and Prabin Kumar Bora. Effect of attention and triplet loss on chart classification: a study on noisy charts and confusing chart pairs. In Journal of Intelligent Information Systems September 2022, pages 1-28. Link**

- **Thiyam, J., Singh, S.R. Bora, P.K. Chart classification: a survey and benchmarking of different state-of-the-art methods. International Journal on Document Analysis and Recognition (IJDAR), 2023.Link**

- **Jennil Thiyam, Sanasam Ranbir Singh, and Prabin Kumar Bora.Chart Classification - A Survey and Benchmarking of Different State-of-the-Arts Methods . In International Journal on Document Analysis and Recognition (IJDAR). (Revised paper submitted)**

- **Jennil Thiyam, Sanasam Ranbir Singh, and Prabin Kumar Bora. Integrated document segmentation and region identification-textual, equation and graphical. In Multimedia System journal. (Revised paper submitted)**

Conferences

- **Jennil Thiyam, Sanasam Ranbir Singh, and Prabin Kumar Bora. Challenges in chart image classification: a comparative study of different deep learning methods. In ACM Symposium on Document Engineering, Association for Computational Linguistics 2021 pages 29:1–29:4. Link**

- Jennil Thiyam, Sanasam Ranbir Singh, and Prabin Kumar Bora. Chart classification: an empirical comparative study of different learning models. In Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP), 2021 pages: 32:1-32:9 Link

TEACHING ASSISTANTSHIP AND ADDITIONAL RESEARCH

Indian Institute of Technology Guwahati, India

- **Project Associate for the project "Traceable value chain for safe pork in the northeastern region of India "** *funded by the Information Technology Research Academy (ITRA)*   ***Since February 2023***
- **Teaching assistant for a Coursera course on** *Post Graduate Certificate in Deep Learning for Computer Vision and Extended Reality*   ***Since July 2022***
- **Teaching assistant for a course LS531:** *Data Structure and Programming*   ***July-December 2018***
- **Teaching assistant for C++ Programming Lab** *at NIT Manipur, India*   ***2016 - 2017***

WORKSHOP & TRAINING

- **Participated in 3 days of International conference on Emerging Trends in Science and Engineering Research (ETSER-2015) from 2 Dec-4 Dec 2015**
- **An active volunteer of the conference WiSSAP (Signal Processing for Speech and Hearing Disorders) from 19 - 22 Jan 2018**
- **An active volunteer of the conference ACCS (Annual Conference of Cognitive Science) from 10 - 12 Oct 2018**
- **Attended five days course on TEQIP-III Sponsored Short Term Course on Deep Learning for Natural Language Processing (NLP) from 18 Nov-22 Nov 2019**
- **Participated in three days poster presentation in North-East research Conclave (NERC) from 20 -22 May 2022**

ACHIEVEMENTS & AWARDS

- **Secured First Class 2nd best position(of the CSE department) with distinction in Bachelor of Technology**
- **Secured 2nd best position in Master of Technology of the 2018 batch**
- **Awarded Gold medal (of the CSE department) in Master of Technology**
- **Honour with meritorious award by the State Government of Manipur for the performance in High School Leaving Certificate examination (HSLC examination) and Higher Secondary Examination (HSE).**

PHD PROJECT

Title: *A Structure-preserving Document Conversion System (Manipuri Documents in Bengali Script to Meetei Script)*
Objectives: Develop an automatic system for converting a document (in image form) from one source script to another target script, the system level objectives of the project are

1. **To develop an automatic Document Conversion System (DCS) for Manipuri Document written in Bengali script to Meetei script without distorting the structural properties of the source document,**

2. **Generate document description file for further document analysis from the proposed DCS.**

Supervisor: Dr.Sanasam Ranbir Singh, Dept. of CSE, and Prof. Prabin Kumar Bora, Dept. of EEE, IIT Guwahati

MASTER OF TECHNOLOGY PROJECT

Title: *Detection of Epilepsy Patient from EEG Signals*
Objectives: Develop a medical assistant system to identify a patient with epilepsy, which is one of the cureless diseases.

1. With Medical experts, and one authorized person from RIMS (Regional Institute of Medical Sciences) Manipur, India, EEG samples are collected

2. The system is developed considering three well-known techniques of Machine Learning (ML): Conventional methods, Unsupervised learning, and Supervised learning

Supervisor: Dr. Khelchandra Thongam , Dept. of CSE, NIT Manipur

BACHELOR OF TECHNOLOGY PROJECT

Title: *Text Extraction from Natural Scene Image and Convert to Speech*
Objectives: Develop a novel Textual-image to Speech Conversion (TSC) system for the English language.

1. Textual extraction system: A Connected Component-based text detection algorithm, which employs Edge-Enhanced Maximally Stable Extremal Regions (MSER) and stroke Width transform is proposed.

2. Google converter for the textual-to-speech is employed to complete the objective.

Supervisor: Dr. Chingakham Neeta Devi , Dept. of CSE, NIT Manipur

TECHNICAL SKILLS

Technical Skill:	OCR implementation, Computer vision model implementation
Programming:	C, C++, python, MATLAB
Documentation language:	LaTeX, Microsoft Word
Databases:	MySQL
Operating System:	Windows, Linux

REVIEWER

- **ACM Transactions on Asian and Low-Resource Language Information Processing**

- **Applied Soft Computing (ScienceDirect)**

- **IEEE Transactions on Image Processing**