

AKKAL BAHADUR BIST

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IT professional, researcher, and educator with experience in university IT infrastructure management, and computer science teaching. Focused on deep learning systems and research in machine translation and speech technologies for low-resource languages.

RESEARCH INTERESTS

Artificial Intelligence · Machine Learning · Deep Learning · Natural Language Processing
Low Resource Languages like Nepali and Doteli in NMT · Image Processing · Computer Vision · Data Science

WORK EXPERIENCE

2025–Present **Part-Time Lecturer**, *Amrit Science Campus*, Kathmandu

Academic Programs Taught:

- Masters in Information Technology (MIT)
- Bachelor of Science in Computer Science and Information Technology (B.Sc. CSIT)
- Bachelor of Information Technology (BIT)

2022–Present **Head Technical Assistant - IT**, *Tribhuvan University*, Amrit Science Campus

Key Responsibilities & Administration:

- Administrative Head of the Department of Computer Science and Information Technology - across the programs MIT, B.Sc. CSIT, and BIT.
- **System Infrastructure Management:**
 - Production administration of official web portal: ac.tu.edu.np
 - Orchestrated localized deployment of campus [Office Automation Platforms](#).
 - Directory administration of central University Office Mail domains.

2019–2022 **MIS Operator**, *Bungal Municipality*, Bajhang, Nepal

Data Systems Management:

- Maintained regional VERSP-MIS systems for social security provisioning and registration.
- Optimized core IEMIS databases tracking school performance diagnostics metrics.
- Served as lead administrator for web delivery infrastructures: bungalmun.gov.np

2018–2019 **Data Science & ML Research Intern**, *Kathmandu Institute of Applied Sciences*

Technical Output:

- Executed spatial predictive analytics with Remote Sensing workflows using ArcGIS and QGIS packages.
- Programmed custom pipelines via Python and R structures for target data visualization steps.
- Produced predictive spatial layouts evaluating localized Species Distribution Models across Nepal.

2017–2022 **Director of Research and Technology**, *Sikhar Tech Pvt. Ltd.*, Kathmandu

Deliverables:

- Engineered distributed software architectures tailoring institutional frameworks for civic bodies.
- Directed complete technical roadmaps for private enterprise applications.

ACADEMIC QUALIFICATION

2023–2025 **Master of Science in Computer Science and Information Technology (M.Sc. CSIT)**, *Central Department of Computer Science and Information Technology (CDCSIT)*, Tribhuvan University, Kirtipur, Kathmandu, Nepal

2013–2017 **Bachelor of Science in Computer Science and Information Technology (B.Sc. CSIT)**, *Swastik College*, Tribhuvan University, Bhaktapur, Nepal

2011–2013 **+2 Science**, *Hill Town International Higher Secondary School*, HSEB, Kirtipur, Kathmandu, Nepal

2000–2010 **School Leaving Certificate (SLC)**, *Shree Kedar Secondary School*, Govt. of Nepal, Bajhang, Nepal

ACADEMIC RESEARCH & PROJECTS

2025 **Dissertation Research**, Neural Machine Translation for Doteli Language using Transformer Model with Back Translation

2024 **Literature Review Research**, Transfer Learning for Grammar Generation in Low-Resource Languages

2024 **Seminar Work II**, Nepali currency recognition using CNN

- 2023 **Seminar Work I**, A Comparative Study of Convolution Neural Network Based on Image Classification
- 2017 **Project Work**, Bijulimapan: A Machine Learning-driven Power Computation Tool

MASTERS THESIS SUPERVISION

- 2026 **Mr. Kamal Raj Joshi**, *Masters in Information Technology (MIT)*, Amrit Campus, TU, Thamel, Kathmandu
- Thesis Project Title:** *Impact of GAN Based Data Augmentation on Nepali Currency Recognition Using CNN*
- Academic Records: Reg. No.: 5-2-61-53-2014 | TU Roll No.: 7925037/079

TECHNICAL EXPERTISE

- Languages **Python, R**, PHP, C, C++, Java, JavaScript, SQL, HTML, CSS
- Frameworks Jupyter Environments, RStudio, ArcGIS, QGIS, Android Studio, Oracle, Shiny Engines
- Typesetting L^AT_EX, Overleaf Compiler, Inkscape Vector Graphics, GIMP Editing, MS Office Suite
- Environments Linux System Architectures, Windows Enterprise, macOS, Managed Hypervisors (VMware/VirtualBox)

ACTIVITIES & ACHIEVEMENTS

- Facilitated and served as Principal Presenter for the *Data Analytics Pipelines Using Python* workshop.
- Completed specialized algorithmic segments during the Machine Learning workshops by Developer Session.
- Participated in the core *Machine Learning and Data Analytics Series* managed by TU Central Dept. of CSIT.
- Competed as an active technical builder within the NASA International Space Apps Challenge track.
- Earned specialized verifications in Machine Learning, Neural Networks, and Statistical Processing via Coursera and Udemy.

ONLINE PORTFOLIOS

 github.com/akkalbist55

 freecodecamp.org/akkalbist55

 [linkedin.com/in/akkalbist55](https://www.linkedin.com/in/akkalbist55)

 [facebook.com/akkalbist55](https://www.facebook.com/akkalbist55)

 [youtube.com/@akkalbist55](https://www.youtube.com/@akkalbist55)

 x.com/akkalbist55

LANGUAGE SKILLS

 **Nepali** Native Proficiency

 **English** Independent Professional Capabilities

 **Hindi** Independent Communicator

Professional Attestation,



Akkal Bahadur Bist

Date: August 24, 2026