



AITB 2019

Artificial Intelligence for Transforming Business & Society

aitb.tbc.edu.np
November 5

Conference Booklet



MESSAGE FROM THE CEO

I am delighted to announce that The British College is organizing the first international conference on Artificial Intelligence in Nepal.

Artificial Intelligence (AI) is a rapidly emerging catalyst for economic growth in this era. It is a collection of multiple technologies that enable machines to sense, comprehend, act and learn either on their own or to augment human activities. It is a new factor of production and has the potential to introduce new sources of growth, changing how work is done and reinforcing the role of people to drive growth in business. Accenture research on the impact of AI in 12 developed economies reveals that AI could double annual eco-

nomic growth rates in 2035 by changing the nature of work and creating a new relationship between humans and machine. The impact of AI technologies on business is projected to increase labour productivity by up to 40 per cent and enable people to make more efficient use of their time. In summary, AI has tremendous potential for business growth and social transformation.

Nepal, despite being a developing country, aspire to move progressively in the world of technology and innovation. With the recently updated supportive Government Acts, Nepal has a world of possibilities for international investment and collaboration for sustainable economic development where innovative technology will play a key role. This is where AI becomes a valuable tool to support the agenda of sustainable development in business and society.

Although the potential of AI to transform business and society seems limitless, the possible threats and risks associated with it cannot be ignored. The conference will also aim to provide awareness regarding these pressing issues.

This conference will present a pioneering forum for the exchange of ideas and information between academia and industry practitioners from Nepal and the international community. The conference will also provide prospective students with a valuable opportunity to learn more about the latest developments in AI technology, its application in industry and the challenges that come along with its adoption.

My team and I take a great pleasure in inviting you to the AI conference. I look forward to welcoming you in Kathmandu in November 2019.



Rajen Kandel
Chief Executive Officer
The British College, Kathmandu, Nepal



Artificial Intelligence for Transforming Business and Society
November 5th, 2019
Venue : Hyatt Regency, Boudha, Kathmandu, Nepal

Time	Program	
7:00 AM – 8:00 AM	Registration and Networking: Tea/Coffee	60 min
8:00 AM - 8:10 AM	Welcome and Opening Remarks Mr Joey Foster Ellis, Principal, The British College	10 min
8:10 AM - 8:20 AM	Address by the Conference Chair Professor Shashidhar Ram Joshi, Institute of Engineering, Tribhuvan University	10 min
8:20 AM - 8:30 AM	Address by IEEE Nepal Subsection Chair Dr Arun Timilsina, Institute of Engineering, Tribhuvan University	10 min
Keynote Address #1		
8:30 AM - 9:00 AM	Dr Pawel Capik, University of the West of England Topic: Foreign Investment Promotion in the Age of Industry 4.0	30 min
Paper Presentation: 1 to 3 Session Chair: Dr Pramod Parajuli		
9:00 AM - 9:15 AM	Paper 1: Fine-Grained Sentiment Classification Using BERT (Authors: Manish Munikar, Sushil Shakya, Aakash Shrestha)	15 min
9:15 AM -9:30 AM	Paper 2: Time Series Based Pattern Recognition for Anomaly Detection from System Audit Logs (Authors: Prabhat Pokharel, Sandeep Sigdel, Roshan Pokhrel, Basanta Joshi)	15 min
9:30 AM -9:45 AM	Paper 3: Photograph Ownership and Authorization Using Blockchain (Authors: Kaushal Poudel, Arpan Pokhrel, Arun B. Aryal, Pranita Upadhyaya)	15 min
Keynote Address #2		
9:45 AM – 10:15 AM	Dr Ah-Lian Kor, Leeds Beckett University, UK Topic: Qualitative Spatial Models and Reasoning for Autonomous Navigation	30 min
Paper Presentation: 4 to 5 Session Chair: Dr Sanjeeb Prasad Panday		
10:15 AM - 10:30 AM	Paper 4: Optimal Cyber Threat Intelligent System for Nepal (Authors: Swarup Raj Dhungana, Pranita Upadhyaya)	15 min
10:30 AM - 10:45 AM	Paper 5: Image Enhancement Using Successive Mean Quantization Transform and Homomorphic Filtering (Authors: Sujan Adhikari, Sanjeeb Prasad Panday)	15 min
10:45 AM to 11:00 AM	TEA BREAK 1	15 min
Panel Discussion 1: AI Awareness and Ethics		
11:00 AM - 11:45 AM	PANEL members: 1. Mr Asgar Ali, CEO, E-Sewa and IT Consultant to Prime Minister of Nepal 2. Mr Subash Manandhar, Senior Director, Fusemachines 3. Mr Birendra Mishra, Joint Secretary, MOCIT 4. Professor Manish Pokharel, Kathmandu University Moderator: Dr Pranita Upadhyaya	30 min Discussion 15 min Q&A
11:45 AM - 12:45 PM	LUNCH and Poster Presentation	60 min

Paper Presentation: 6 to 12 Session Chair: Dr Dibakar Pant and Dr Roshan Chitrakar		
12:45 PM – 1:00 PM	Paper 6: Smart Job Recruitment Automation: Bridging Industry and University (Authors: Vijay Yadav, Ujjwal Gewali, Suman Khatri, Shree Ram Rauniyar, Aman Shakya)	15 min
1:00 PM - 1:15 PM	Paper 7: Design and Implementation of a Cost-Efficient Smart Home System with Raspberry Pi and Cloud Services (Authors: Swojeet Kayastha, Pranita Upadhyaya)	15 min
1:15 PM – 1:30 PM	Paper 8: One-Shot Template Matching for Automatic Document Data Capture (Authors: Pranjal Dhakal, Manish Munikar, Bikram Dahal)	15 min
1:30 PM - 1:45 PM	Paper 9: A Comparison of Semantic Similarity Methods for Maximum Human Interpretability (Authors: Pinky Sitikhu, Kritish Pahi, Pujan Thapa, Subarna Shakya)	15 min
1:45 PM – 2:00 PM	Paper 10: Nepali Image Descriptor (Authors: Sushil Ghimire, Aashish Adhikari)	15 min
2:00 PM - 2:15 PM	Paper 11: A Clustering Based Vertical Fragmentation and Allocation of a Distributed Database (Authors: Abhishesh Dahal, Sashidhar Ram Joshi)	15 min
2:15 PM - 2:30 PM	Paper 12: A Comparative Analysis on the Performance Of Minimum Spanning Tree and k-means Clustering Based Vertical Fragmentation Algorithm (Authors: Abhishesh Dahal, Sashidhar Ram Joshi)	15 min
2:30 PM - 2:45 PM	Paper 13: Machine Learning algorithm in educational data (Authors: Manish Pokharel, Sushil Shrestha)	15 min
Keynote Address #3		
2:45 PM - 3:15 PM	Dr Tim Gocher, CEO, Dolma Impact Fund Topic: An Investor's Perspective on AI	30 min
3:15 PM to 3:30 PM	TEA BREAK 2	15 min
3:30 PM – 3:45 PM	Address by Mr Ravi Bajracharya, CTO/Co-Founder Wiseyak Inc. Topic: AI in Healthcare Management in Nepal	15 min
Keynote Address #4		
3:45 PM – 4:15 PM	Dr Muhammad Bilal, University of the West of England Topic: Modernising Businesses with Artificial Intelligence (AI): Myth or Magic Bullet?	30 min
Panel Discussion 2: Business Intelligence through AI: Why Businesses of Today should Develop AI Strategy for Tomorrow		
4:15 PM – 5:00 PM	Panel members: 1. Mr Ravi Bajracharya, CTO/Co-Founder Wiseyak Inc. 2. Dr Bal Krishna Bal, Kathmandu University 3. Mr Ayush Subedi, Co-Founder of Moonlit Solutions 4. Mr Chandan Gupta, Makura Creations Moderator: Mr Amod Niroula	30 min Discussion 15 min Q&A
5 PM – 5:15 PM	Closing Remarks: Mr Rajen Kandel, CEO, The British College	15 min
5:15 PM: 5:30 PM	Official Photo Session	15 min

KEYNOTE SPEAKERS

Dr Pawel Capik, University of West England

Topic: Foreign Investment Promotion in the Age of Industry

Dr Pawel is a lecture in International Business. Prior to joining Bristol Business School in July 2019, he worked at Keele University, Sheffield Hallam University, University of the West of Scotland and University of Glasgow. He was also a Visiting Faculty at Grenoble Ecole de Management, France. He graduated from the Jagiellonian University in Kraków, Poland, and completed my PhD at the Centre for Contemporary European Studies at the University of the West of Scotland.



Dr Pawel was a recipient of The Ryoichi Sasakawa Young Leaders Fellowship Fund (SYLFF) Research Grant.

Dr Ah-Lian Kor, Leeds Beckett University, UK

Topic: Qualitative Spatial Models and Reasoning for Autonomous Navigation

Dr Ah-Lian Kor is part of Leeds Beckett MSc Sustainable Computing Curriculum Development Team. She has been involved in several EU projects for Green Computing, Innovative Training Model for Social Enterprises Professional Qualifications, and Integrated System for Learning and Education Services. She has published work on ontology, Semantics Web, Web Services, Portal and semantics for GIS.



She is active in AI research and has developed an intelligent map understanding system and reasoning system. Dr Kor designed, implemented and evaluated interactive simulations, investigated reasoning and learning styles adopted by users when they interact with computer learning systems. She also co-developed the Horizontal and Vertical Constraints Model and an Expressive Hybrid Model for the reasoning of cardinal direction relations between regions. This entailed formalising definitions for the following: atomic binary cardinal relations, whole and part cardinal relations, weak and expressive relations.

Dr Tim Gocher, CEO, Dolma Impact Fund

Topic: An investor's perspective on AI

Tim is the founder and CEO of Dolma Impact Fund - the first international Private Equity fund for Nepal. As an impact fund it targets positive financial returns alongside social and environmental outcomes. Dolma's investments span multiple sectors including renewable energy, healthcare, technology and agriculture. Their portfolio companies generate quality, sustainable employment for thousands in one of Asia's poorest countries.



Tim Gocher is Hon. Professor of Sustainable Business in the Business School at the University of Nottingham Malaysia Campus. His focus areas include impact investment, corruption, and IP commercialisation and technology clusters. He is also a guest lecturer at London Business School, and has been published in London Business School Review among other journals.

Dr Muhammad Bilal, University of West England

**Topic: Modernising Businesses with Artificial Intelligence (AI):
Myth or Magic Bullet?**

Dr Muhammad Bilal is Associate Professor of Big Data and Artificial Intelligence (AI) at Big Data Laboratory, University of the West of England (UWE), Bristol. He holds a PhD in Big Data Analytics from UWE, Bristol. During his PhD, he developed a simulation platform for UK largest construction firm (Balfour Beatty) in which hybrid AI models (i.e. Tabular, Vision and Sequence) were operationalised in conjunction with Big Data, Scientific Visualisation, and GIS for automating non-trivial planning and execution tasks in Megaprojects. Dr Bilal has multi-disciplinary research interests that span across fields of Construction Informatics, Digital Health, Image Processing, Scientific Visualisation, AI, Computer Vision, Natural Language Processing, Geospatial Analysis & Mining and Web-of-Data technologies.



His area of expertise is Big Data, Artificial Intelligence, Computer Vision, Image Processing, NLP, Optimisation, Python, SQL/PLSQL and Enterprise Java.



Paper 1

Fine-grained Sentiment Classification using BERT

(Authors: Manish Munikar, Sushil Shakya, Aakash Shrestha)

Abstract - Sentiment classification is an important process in understanding people's perception towards a product, service, or topic. Many natural language processing models have been proposed to solve the sentiment classification problem. However, most of them have focused on binary sentiment classification.

In this paper, we use a promising deep learning model called BERT to solve the fine-grained sentiment classification task. Experiments show that our model outperforms other popular models for this task without sophisticated architecture. We also demonstrate the effectiveness of transfer learning in natural language processing in the process.

Index Terms - sentiment classification, natural language processing, language model, pretraining.

Paper 2

Time Series Based Pattern Recognition for Anomaly Detection from System Audit Logs

(Authors: Prabhat Pokharel, Sandeep Sigdel, Roshan Pokhrel, Basanta Joshi)

Abstract - Pattern recognition is very important for the identification of anomalous patterns in log messages. This paper presents pattern recognition in time series log data for anomaly detection. The proposed method uses Seasonal Auto Regression Integrated Moving Average (Seasonal ARIMA) to identify deviations between actual and predicted values. The deviations beyond a defined threshold are identified as anomalous data points.

Anomalous data points for the positively correlated data points are used to calculate the composite anomalous score. Finally, the approach is compared with Seasonal Extreme Studentized Deviate (ESD). The method calculates the anomalous score in the range of 0 to 100. This can be used to understand the security risk posture and thus prioritize the incidents associated with a given user.

Keywords - Anomaly Detection, Seasonal ARIMA, ESD, Autoregression, Moving Average, Autocorrelation, Log Data





Paper 3

Photograph Ownership and Authorization using Blockchain

(Authors: Kaushal Poudel, Arpan Pokhrel, Arun B. Aryal, Pranita Upadhyaya)

Abstract - The number of photographs taken is increasing exponentially each year. This includes the photographs captured by professional as well as non-professional personnel. The ease in accessibility of these work of art over the internet has increased unauthorized use of owner's property without handing them their deserved credit. In addition, the process to take the authorization over the use of the photograph from the respective owner takes a large amount of time as well as money. One of the solutions to this problem is the use of distributed ledger technology known as 'Blockchain' in order to keep the decentralized record of ownership. In addition, storing the photograph itself on the decentralized platform can make it more secure.

Furthermore, designing a smart contract in which the user and owner can agree on the use of the owner's property can address the problem of unauthorized use. This paper describes the integration of blockchain, distributed storage, and peer-to-peer communication in order to solve the current problem of handling photograph ownership and authorization. Ethereum blockchain is implemented to achieve secure transaction and handling functionality regarding authorization with the help of smart contracts that runs on the blockchain.

As the storage layer, the paper discusses the InterPlanetary File System (IPFS) as a distributed database with which the photographs can be stored such that decentralization can be achieved. Only after the verifying the similar image does not exist on the system the image is stored in IPFS.

The existence of a duplicate image is done with the implementation of dHash algorithm and hamming distance. Whisper protocol allows the owner of the photograph and user on the Ethereum blockchain to leverage peer-to-peer communication to reach a consensus.

Keywords - Blockchain, Ethereum, InterPlanetary File System (IPFS), Whisper, dHash Algorithm, Hamming Distance



Paper 4

Optimal Cyber Threat Intelligent System for Nepal

(Authors: Swarup Raj Dhungana, Pranita Upadhyaya)

Abstract - In today's world cyber threat intelligence has been one of the major prerequisites for overall development of the country, especially for developing nations like Nepal. The main aim of the research is to identify an optimal cyber threat intelligence system framework which addresses the current issues of cyber security and ideally fits in the current context of Nepal. Using the Coburg Intrusion Detection Data Set, two machine learning models; Deep Learning and Random Forest are trained and evaluated, to choose the ideal one for the framework along with ontology mapping to introduce adaptive learning feature in the system.

The proposed framework minimizes the current gap in cyber security for Nepal. Furthermore, the study can be extended to add different features such as; creating a proper user interface and implementing the alert feature for the system which can be vital for establishing Nepal Cyber Security Center.

Keywords - cyber threat intelligence system, security, framework, ontology, soft computing.

Paper 5

Image Enhancement using successive mean quantization transform and homomorphic filtering

(Authors: Sujan Adhikari, Sanjeeb Prasad Panday)

Abstract - Low contrast images are not conducive to human perception and computer vision algorithms due to their low discernibility. In many application quality of acquired images are not suitable, so image has to be enhanced according to the need of a specific application.

To solve the problems of detail loss, poor contrast and problems of noise, a new technique based on homomorphic filtering is proposed. This paper contributes to combine the filter based and Successive Mean Quantization Transform (SMQT) algorithm for better image quality of digital image by minimizing the properties such as gain and bias. First, we investigate the result for the standard images and experimental images. Second, we measure the results by using Peak Signal-to- Noise Ratio (PSNR), Structural Similarity (SSIM), blind/reference less image spatial quality evaluator (BRISQUE) and Blind Image Quality Indices (BIQI).

Finally, model is compared with enhancement algorithms. Simulation and experimental results demonstrates that proposed model provides better results as compared to other state-of-art contrast enhancement algorithms. The implementation is done using MATLAB.

Keywords—Contrast Enhancement, Computer Vision, Successive Mean Quantization Transform, Homomorphic Filter

Paper 6

Smart Job Recruitment Automation: Bridging Industry and University

(Authors: Vijay Yadav, Ujjwal Gewali, Suman Khatri, Shree Ram Rauniyar, Aman Shakya)

Abstract - This paper proposes and highlights the need of an online job board system for colleges and its effectiveness in bridging the gap between college students and career opportunities. Traditionally, employment websites have been used in HR management for finding candidates and in recruitment. This work is based on a job portal built for one of the leading engineering campuses of Nepal, Pulchowk Campus, which is a variation of such job boards designed specifically to serve the students of the Campus.

With services like job recommendations to students based on their skills, and candidate filtering to assist companies in candidate matching, the system is expected to be of use for both students for exploring jobs, and companies to find potential candidates suited for the job.

Keywords - job portal, HR management, candidate matching, job recommendation

Paper 7

Design and Implementation of a Cost-Efficient Smart Home System with Raspberry Pi and Cloud Services

(Authors: Swojeet Kayastha, Pranita Upadhyaya)

Abstract - With the advent of the Internet of Things (IoT), a large number of devices are being connected to each other every day. Each connectivity opens the door to new possibilities to make a person's life easier and convenient. A smart home is one such area impacted by IoT which greatly improves a person's life by helping them create a secure environment for his family and carry out his day-to-day activities with ease. Focusing primarily in the context of Nepal where available smart systems are either expensive or lack basic features, this paper essentially deals with the design and implementation of a cost-efficient smart home system focusing on remote surveillance, monitoring different aspects (movement detections, surveillance and temperature and humidity) of a home with notification alerts.

Furthermore, the system also aims to reduce electricity usage and minimize energy consumption by helping a person automate their everyday tasks such as turning on/off lights, thermostats, etc. by detecting their presence. Raspberry Pi is the heart of the home system managing all of these services. In addition, Amazon Cloud Services, Simple Email Service (SES) and Simple Notification Service (SNS) are used for notifying users/home- owners. The product could further be regarded as a prototype and additional features could be added on top of it to create one's own version of "smart home".

Keywords - Internet of Things (IoT), Smart Home, Security, Home Automation, Raspberry Pi, Amazon Web Services, Amazon SES, Amazon SNS.



Paper 8

One-Shot Template Matching for Automatic Document Data Capture

(Authors: Pranjal Dhakal, Manish Munikar, Bikram Dahal)

Abstract - In this paper, we propose a novel one-shot template- matching algorithm to automatically capture data from business documents with an aim to minimize manual data entry. Given one annotated document, our algorithm can automatically extract similar data from other documents having the same format. Based on a set of engineered visual and textual features, our method is invariant to changes in position and value. Experiments on a dataset of 595 real invoices demonstrate 86.4% accuracy.

Index Terms - document processing, automatic data capture, template matching, one-shot learning.

Paper 9

A Comparison of Semantic Similarity Methods for Maximum Human Interpretability

(Authors: Pinky Sitikhu, Kritish Pahi, Pujan Thapa, Subarna Shakya)

Abstract - The inclusion of semantic information in any similarity measures improves the efficiency of the similarity measure and provides human interpretable results for further analysis. The similarity calculation method that focuses on features related to the text's words only, will give less accurate results. This paper presents three different methods that not only focus on the text's words but also incorporates semantic information of texts in their feature vector and computes semantic similarities.

These methods are based on corpus-based and knowledge-based methods, which are: cosine similarity using tf-idf vectors, cosine similarity using word embedding and soft cosine similarity using word embedding. Among these three, cosine similarity using tf-idf vectors performed best in finding similarities between short news texts. The similar texts given by the method are easy to interpret and can be used directly in other information retrieval applications.

Index Terms - semantic similarity, cosine similarity, soft cosine similarity, word embedding





Paper 10

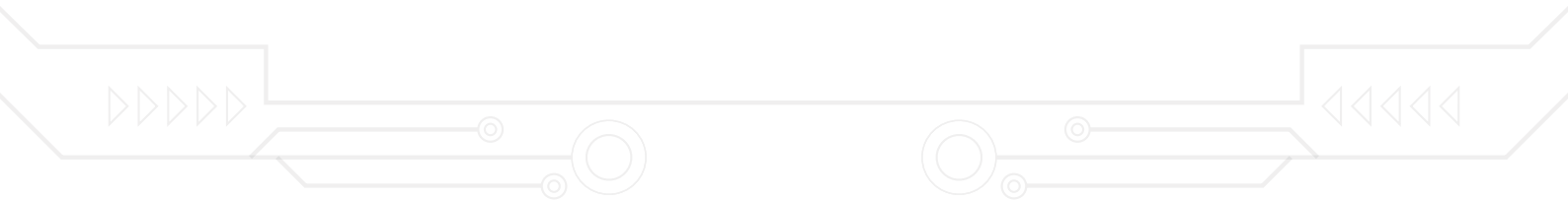
Nepali Image Descriptor

(Authors: **Pranjal Dhakal, Manish Munikar, Bikram Dahal**)

Abstract - Neural networks have seen a surge in applications ranging image recognition, time series prediction, and image captioning among others. The task of image captioning combines two fields of machine learning - computer vision and natural language processing. Several works have been done for image captioning in dominant languages like English and Mandarin with impressive results.

The challenge, however, increases for Nepali, a language with a complex grammatical structure. With inherently complex grammar, inputting an image and generating the description of the image in Nepali with correct grammar is hard to achieve. Also, a standard data set does not exist for such tasks in Nepali. This work on image captioning in Nepali is the first of its kind that establishes a baseline for tasks of this sort and aims to encourage other researchers to pursue this line of research. For this, it makes public the data set that was generated during this process so as to provide a standard data set for future works.

This work builds on top of the model proposed by [24] and generates image descriptions in Nepali. Describing the contents of an image in Nepali has several applications. Additionally, this work serves as a gateway to more challenging problems such as a video descriptor system and image search for search engines in Nepali. This work utilizes two encoder-decoder architectures, one with visual attention and another without visual attention. We empirically show the loss and perplexity of model performances using different optimizers. The captions generated are agreeable and coherent with the images in general and leave room for improvements in the future.





Paper 11


A Clustering based vertical fragmentation and allocation of a distributed database

(Authors: **Abhishesh Dahal, Sashidhar Ram Joshi**)

Abstract - Distributed Database Management System (DDBMS) is often surrounded with an issue of identifying the best design strategy. Efficiency of this design strategy to a great extent rely upon fragmentation of a relation. It additionally relies upon allocation of the fragment pieces to some sites within the network. Fragmentation and allocation are considered independent, even though they utilize similar information to accomplish a common target. Among the existing fragmentation strategies, vertical fragmentation is regularly viewed as an entangled fragmentation strategies than other on the grounds that the immense number of choices makes it about difficult to get an ideal answer for the vertical fragmentation issue.

Allocation of a fragment is a NP-hard problem as it is complex to search an optimal site for holding the fragment. In this manner, we can just hope to discover a heuristic arrangement of solution for all these activities. The main purpose of this research is to present a clustering based fragmentation technique in which table attributes with similarity reside in same fragment cluster.

As per the frequency of user query, affinity matrix is generated. This affinity matrix is further utilized to generate affinity cluster. Based on this affinity cluster, attributes having least Euclidian distance between them are considered as similar attributes and vertical fragments are obtained. After the fragments are generated those fragments are allocated to certain desired sites based on allocation table. This approach aims to solve the issue and complexity that occurs in previous vertical fragmentation approach.





Paper 12

A comparative analysis on the performance of minimum spanning tree and k-means clustering based vertical fragmentation algorithm

(Authors: Abhishesh Dahal, Sashidhar Ram Joshi)

Abstract - Distributed database is an emerging technology in context of database which is supposed to possess a remarkable benefits for data storage in upcoming future. One of the major distributed database design issue rely upon fragmentation of the relations. Among the fragmentation task, vertical fragmentation exhibits an entangled behavior in comparison to other due to its multi solution nature. The main objective of research highlighted in this paper is to find the best vertical fragmentation algorithm to be utilized for splitting the attributes of a database relation. Two partitioning algorithms namely Minimum Spanning Tree based vertical fragmentation algorithm and K-Means clustering based vertical fragmentation algorithm are employed to generate variety of fragments of a database relation.

Further, those generated fragments are compared through partition comparator on the basis of data access cost utilized. The final outcome of the partition comparator concludes the best vertical fragmentation algorithm for utilization. As per the experiment, K-Means Clustering based fragmentation generates less data access cost in comparison to Minimum Spanning Tree based fragmentation.

Keywords - Distributed Database, Vertical Fragmentation, Minimum Spanning Tree, K-Means Clustering, Partition Comparator

Paper 13

Machine Learning algorithm in educational data

(Authors: Authors: Sushil Shrestha, Manish Pokharel)

ABSTRACT - Educational Data Mining (EDM) is one of the concern areas of data mining used for gathering, analyzing, and presenting information. The purpose of this paper is to analyze online learners' activities to extract hidden information using clustering and classification techniques. The data were collected from learners enrolled in a MOOC course called C programming offered by Kathmandu University of Nepal. For clustering, K-means algorithm was used for grouping of the student with similar characteristic to understand the learners' behavior and for classification, Support Vector Machine (SVM) classifier was implemented to develop predictive model that predicts the students' performance labeled with a class such as low, medium and high.

The extracted knowledge can be used by the academic institution to improve teaching and learning processes and improve learner's performance which consequently helps in academic achievement. This research helps in early identification of weak students such that timely decision making can be done to improve learner's performance and reduce online learner's dropout rates.

Keywords: Online Learning (OL), Educational Data Mining (EDM), K-means clustering, SVM model



Panel Discussion Structure

Panelists	Post	Moderator
Panel 1 Theme: AI awareness and ethical issues		
Mr Asgar Ali	CEO, Esewa and IT Consultant to the Prime Minister of Nepal	Dr Pranita Updhayaya
Prof Manish Pokharel	Associate Professor, Kathmandu University	
Mr Subash Manandhar	Sr Director, Fusemachine	
Mr Birendra Mishra	Joint Secretary, MOCIT	
Panel 2 Theme: Business Intelligence through AI: Why businesses of today should develop AI strategy for tomorrow		
Dr Bal Krishna Bal	HOD, Computer Science and Eng Dept, Kathmandu University	Mr Amod Niroula
Mr Ravi Bajracharya	CTO/C0-founder, WiseYak	
Mr Ayush Subedi	Co Founder, Moonlit Solutions	
Mr Chandan Gupta	Founder, Makura Creations	

MODERATOR PROFILE

Dr Pranita Upadhyaya

She has a work experience of 22+ years functioning in various sectors; Government/Semi-Government, Private companies and academic institutions, leading a college as a Principal, Project Manager in a software company, IT Consultant to Vice-Chancellor and as an Executive Director of National Information Technology center under Ministry of Science and Technology at Singha Durbar (A Government undertaking)

In these years, she has been involved in various activities from grass root level to policy-making activities, served as a member of the academic council and as an expert to many Government agencies. No matter the type of job and position she held, research has always been her priority and she is continuously involved in it. She is presently involved in the British College as an MSc IT Programme Leader and Research Coordinator. She is responsible for various research activities like organizing conferences, workshops, mentoring students and faculties in research. She is the Organizing Secretary of the AITB2019 conference.

Mr Amod Niroula

Amod Niroula, an engineer by education but an entrepreneur and marketer by profession runs a digital marketing firm as co-founder and project manager of Act360 Ltd. His more than 10 years of working experience along with the academic involvement makes him engaged and active with most of the contemporary happenings in and outside Nepal. He is also a visiting faculty of The British College for business and management programme.

He is currently in the process of completing his thesis of M.Phil Marketing from Kathmandu University.



AITB2019 Conference Committee Structure

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Conference Chairperson	Professor Dr Shashidhar Ram Joshi, IOE
Conference General Chair	Mr Rajen Kandel, CEO, TBC
Organizing Committee Chair	Mr Joey Foster Ellis, TBC
Publication Chair	Dr Arun Bajracharya, TBC
International Steering Committee	Professor Hissam Tawfik, LBU, UK
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	Dr Pranita Upadhyaya, TBC
Technical Programme Chair	Mr Arun Joshi, TBC

Designation	Name
Senior Technical Programme Committee	Professor Dr Manish Pokharel, KU
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	Associate Prof. Dr Surendra Shrestha, IOE
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