



**LKE 2024**  
Language & Knowledge Engineering  
4<sup>th</sup> - 6<sup>th</sup> June 2024



**9th International Symposium on Language & Knowledge Engineering**




**4<sup>th</sup> - 6<sup>th</sup> June 2024**

**Program**



**Day 1**

**June 4<sup>th</sup>, 2024**






TIME	SUBJECT	VENUE	AUTHORS
8.00-9.00	Registration	Main Reception TU Dublin, Grangegorman Campus	
9.00-9.20	Opening ceremony	Room CQ009	
9.20-10.20	Keynote Speaker Dr. Jonathan Dunne IBM	Room CQ009	
10.20-12.00	Session 1	Room CQ009	 Chair: Rajesh Jaiswal
	Fairness Challenges in Insurance Premiums: Investigating Customer Profiling Algorithmic Biases		Purity Biwott Abdelsalam Busalim
	Implementing ethical principles in AI: an initial discussion		Mykhailo Danilevskyi
	An Open Knowledge Graph-Based Approach for Mapping Concepts and Requirements between the EU AI Act and International Standards		Julio Hernandez Delaram Golpayegani Dave Lewis
	Predicting Fire Incidents with ML : an XAI approach		Donghyeok Lee Fernando Perez Tellez Rajesh R Jaiswal
	Redefining Inventorship: A Pending Task on Artificial Intelligence-Generated Inventions		Ricardo Villegas David Pinto
12.00-13.20	Lunch break		

13.30-15.00	Workshop	Room CQ009	 Chair: Fernando Perez Tellez
15.20-16.20	Session 2	Room CQ009	 Chair: David Eduardo Pinto Avendaño
	Predicting collaborations among research scientists: A datathon experience		Maria del Pilar Angeles Helena Gómez Adorno Sinuhé David Hernández Guevara Victor Manuel Corza Vargas
	Predicting Reviewers' Decisions in Scientific Submissions Through Linguistic Analysis		Mayte H. Laureano Hiram Calvo Tania Alcántara Omar García Vázquez
	Peer-to-Peer Network for Co-Reference Resolution		Mridusmita Das Apurbalal Senapati
	Thesis Reviewer's Committee Recommendation System		Omar Juarez Gambino Consuelo Varinia García Mendoza Jose Manuel Suárez Bautista Hannah Gu Hiranm Calvo
16.20-17.30	Poster Session	Foyer CQ	 Chair: Robert Smith

**Day 2**  
**June 5<sup>th</sup>, 2024**




TIME	SUBJECT	VENUE	AUTHORS
8.00-9.00	Registration	Main Reception TU Dublin, Grangegorman Campus	
9.00-10.00	Keynote Speaker Dr. Brian Davis ADAPT Centre	Room CQ009	
10.10-12.10	Session 3A (simultaneous)	Room CQ009	 Chair: John Burns
	A Discourse Graph-Based Approach to Identifying Hedging Language Patterns in Business Communication		Brett M Drury Samuel Morais Drury


	Combining Embeddings and Domain Knowledge for Job Posting Duplicate Detection		Matthias Engelbach Dennis Klau Maximilien Kintz Alexander Ulrich
	Toward The Use of Neural Architecture Search: A Baseline Approach for Solving the Authorship Verification Problem		Luis I Ferro Esteban Castillo V́ctor Adrian Sosa Hernández
	Mouse and Touch Devices: On the Influence of an Interaction's Direction onto its Performance		Ulrich Bröckl Beatriz A González Beltrán
	Large Language Models and Knowledge Graphs: A state-of-the-art review		Alí Gallardo Angeles Belém Priego Sánchez Juan A Nolzco Flores Davide Buscaldi
	Towards a prescriptive analytics-based methodology for healthcare data		Gustavo Emilio Mendoza Olguín María Josefa Somodevilla García Concepción Pérez de Celis Herrero Yanin Chavarri Guerra
10.10-12.10	Session 3B (simultaneous)	Room CQ007	 Chair: Robert Smith
	Knowledge Injection for Field of Research Classification and Scholarly Information Processing		Raia Abu Ahmad Georg Rehm
	Vehicle Engine Fault Diagnosis Approach Based on a Decision Tree and Knowledge Base		Antonio P Pérez Mario Anzures García Luz A. Sánchez Gálvez
	Assessing Subjectivity in News Texts: Advanced Linguistic Models and Text Augmentation Techniques for Fake News Detection		Elena Shushkevich John Cardiff Mikhail Alexandrov
	A study on Content-Based Reviewer Assignment in the Semantic Web and Computer Science domains		Farid Bagheri Davide Buscaldi Diego Reforgiato
	A Comprehensive Synthetic Dataset of Simulated RWH User Daily Activities and Preferences		Yilin Li Junke Xu Alireza Dehghani
	An analysis on the corrective formula for multiple choice questions		Gerardo Martinez-Guzman María Beatriz Bernábe Loranca

			John Cardiff Carmen Ceron
12.10-13.10	Lunch		
13.20-14.20	Keynote Speaker Dr. Francis Flannery Amazon Web Service	Room CQ007	
14.20-14.50	Coffee break		
14.50-15.50	Session 4	Room CQ009	 Chair: Irene Murtagh
	The Economic Value of Words: an evaluation of news for economic analysis		Pierre Antoine Delice David Eduardo Pinto
	Quartile Prediction and Journal Recommendation using Deep Learning models for Artificial Intelligence Articles		Fernando Aguilar-Canto Cesar Macias Alberto Espinosa Marco A. Cardoso Moreno Hiram Calvo
	Recognizing patterns on two principal causes of death in the Mexican population during the period 2010-2021		Guillermo De Ita Luna Erika Bonfil Barragán Daniela Ximena De Ita Varela
17:15	Gathering for gala dinner		
17:30	Bus departing for gala dinner (returning time 11pm approx)		

### Day 3

June 6<sup>th</sup>, 2024

TIME	SUBJECT	VENUE	AUTHORS
8.00-9.00	Registration	Main Reception TU Dublin, Grangegorman Campus	
9.00-10.00	Keynote Speaker Dr. Robert Ross TU Dublin	Room CQ009	
10.00-10.20	Coffee break		
10.20-12.00	Session 5	Room CQ009	 Chair: Abdelsalam Busalim
	Extremal graphs for the number of independent sets on polygonal chains joined by cutting edge		Meliza Contreras González Pedro Bello López Guillermo De Ita Luna

			Jose Raymundo Marcial Romero
	TABHATE: A Target-based Hate Speech Detection Dataset in Hindi		Deepawali Sharma Vivek Kumar Singh Vedika Gupta
	HPV DNA Forward and Reverse Primer Identification		Marta de la Cuadra Lozano Keith Quille Denise Cornally Luke Mc Guigan
	A Similarity-based Algorithm for Predicting Academic Success in First-year Undergraduates		Cinthia Rodríguez Maya Helena Gómez Adorno Carlos Gershenson
	Optimizing Bitcoin Price Prediction: Multivariate LSTM Triumphs		Rajesh R Jaiswal Keith Quille Brian Scanlon
12.00-13.00	Lunch Break		
13.00-14.40	Session 6	Room CQ009	 Chair: Omar Portillo
	A single agent neuroevolution algorithm based on hill climbig optimization for Neural Architecture Search		Yoqsan Angeles Valeria K Legaria
	Safeguarding Children's Innocence: A Multimodal Approach to Detect Profanity from Children Targeted YouTube Content (DePiCT)		Aakash Singh Deepawali Sharma Vivek Kumar Singh
	Statistical Evaluation of Categorical Encoders for Pattern Preservation in Machine Learning Tasks		Eric Valdez Valenzuela Helena Gómez Adorno Angel Kuri Morales
	Algorithmic approach leveraging a real-time task scheduler with fan-out strategy		Mariano Larios Gomez Mario Anzures García Carmen Ceron Garnica Luz A. Sánchez-Gálvez
14.40-15.40	Session 7	Room CQ009	 Chair: Vanessa Ayala
	Measuring and analyzing canine movement through 2D video in relation to their trainability		Eliaf Y Garcia Loya Mariel Urbina-Escalante Veronica Reyes Meza Humberto Pérez Espinosa Irvin Hussein Lopez Nava
	Comparative Evaluation and Utilization of Convolutional Neural Network Architectures		Hafiz Muhammad Sarmad Khan

	for Irish Sign Language Recognition		Simon McLoughlin Irene Murtagh
	A Transformer-Based Multi-Domain Recommender System for E-commerce		Victor Giovanni Morales Murillo David Pinto Fernando Perez Telle