

JCC2021

JORNADAS CHILENAS DE COMPUTACIÓN

PROGRAMACIÓN DE EVENTOS

**15 AL 19
NOVIEMBRE**

WWW.JCC2021.CL



Facultad
de Ingeniería

UNIVERSIDAD DE LA SERENA
CHILE

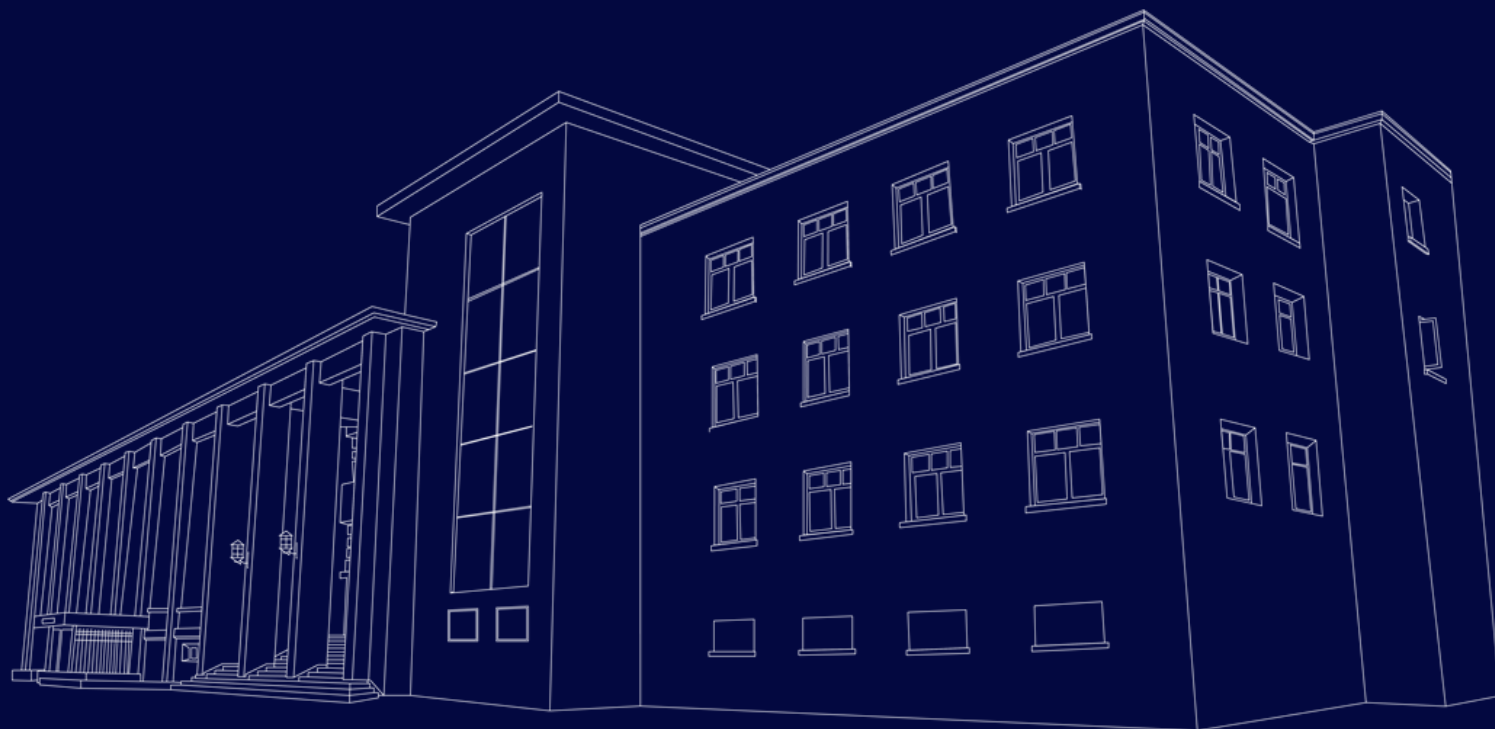


**SOCIEDAD CHILENA DE
CIENCIA DE LA COMPUTACIÓN**



FIULS 2030
UNIVERSIDAD DE LA SERENA

Con el apoyo de
CORFO



EVENTOS



XL INTERNATIONAL CONFERENCE
OF THE CHILEAN COMPUTER SCIENCE SOCIETY (SCCC-2021)



LO MEJOR DE LO NUESTRO
(LMN-2021)



XXII CONGRESO CHILENO
DE TICS PARA LA EDUCACIÓN (TICXED-2021)



IV CONGRESO CHILENO
DE APLICACIONES Y EXPERIENCIA EN
INFORMÁTICA (AEI-2021)



IV ESCUELA
DE FUNDAMENTOS DE LOS DATOS



ENCUENTRO DE TESISISTAS
(ET-2021)

4.0

INDUSTRIA 4.0
Y TRANSFORMACIÓN DIGITAL

JCC2021

JORNADAS CHILENAS DE COMPUTACIÓN

15 AL 19
NOVIEMBRE
WWW.JCC2021.CL

Lunes 15 de noviembre, 08:30 hrs – 11:20hrs.

[SCCC-2021]

- Improving Search Engine Performance Through Dynamic Caching | Autores: Claudio Gutiérrez-Soto, Marco Palomino, Ernesto Roa and Patricio Galdames | Paper ID: 96.
- DevOps-RAF: An assessment framework to measure DevOps readiness in software organizations | Autores: Lilianny Marrero and Hernán Astudillo | Paper ID: 80.
- A Situation-aware Scenario-based Testing Strategy | Autores: Guido Tebes, Denis Peppino, Pablo Becker and Luis Olsina | Paper ID: 23.
- Uses and applications of the OpenAPI/Swagger specification: a systematic mapping of the literature | Autores: Sandra Casas, Diana Cruz, Graciela Vidal and Marcela Constanzo | Paper ID: 45.
- A List of Risks and Mitigation Strategies in Agile Projects | Autores: Nelson Vargas, Beatriz Marín and Giovanni Giachetti | Paper ID: 115.
- VR-Based User Interactions to Exploit InfiniteSpace in Programming Activities | Autores: Víctor Segura, Leonel Merino, Geoffrey Hecht and Alexandre Bergel | Paper ID: 37.

Lunes 15 de noviembre, 11:30 hrs – 13:00hrs.

- CEREMONIA INAUGURAL.
- CHARLA INTERNACIONAL | DRA. TANJA VOS | TESTING INTELIGENTE PARA LA INDUSTRIA 4.0.

Lunes 15 de noviembre, 14:30 hrs – 17:30hrs.

[TICXED-2021]

- Evaluation of the Motivation of University Students in the Learning of Industrial Design Through Augmented Reality | Autor: Luis Laurens | Paper ID: 8.
- Mobile Augmented Reality Adapted to the Gentry-Gable Motivation Model. An Experience of Gifted Students | Autor: Luis Laurens | Paper ID: 9.
- Effects of a Project Based Learning on the development of innovation competencies in online mode in first-year engineering students. | Autores: Marcela Varas, Jorge Maluenda-Albornoz, Diego Chacano-Osses and Javier Vidal-Valenzuela | Paper ID: 18.
- Implementation of a certification program for the exercise of competent teaching in engineering education | Autores: Marcela Varas, Jorge Maluenda-Albornoz, Diego Chacano-Osses and Celia Galve-González | Paper ID: 19.
- Teaching and online learning practices used in different universities during the Covid-19 crisis: Findings and Challenges | Autor: Sara Yepes | Paper ID: 36.
- Service Learning and Problem-Based Learning as Strategies to Enhance the Learning of Mathematical Programming | Autores: Norka Bedregal-Alpaca, Leticia Laura-Ochoa and Cesar Baluarte-Araya | Paper ID: 39.

Martes 16 de noviembre, 08:30 hrs – 11:20hrs.

[SCCC-2021]

- A Deep Learning model for estimating parking space availability | Autores: María Pía Goicoechea, Julián Mastieri, Antonela Tommasel and Juan Rodriguez | Paper ID: 41.
- Evaluation of end-to-end CNN models for palm vein recognition | Autores: José Santamaría, Ruber Hernández-García, Ricardo Barrientos, Francisco Castro, Julián Ramos-Cózar and Nicolás Guil | Paper ID: 52.
- Large-scale palm vein recognition on synthetic datasets | Autores: Ruber Hernández-García, José Santamaría, Ricardo Barrientos, Edwin Salazar, Francisco Castro, Julián Ramos-Cózar and Nicolás Guil | Paper ID: 53.
- Evaluation of the standard and regularized ELMs for gender and age classification based on palm vein images | Autores: David Zabala-Blanco, Ruber Hernández-García, Ricardo Barrientos and Marco Mora | Paper ID: 33.
- Error Finding in Real-Time Systems using Mutants of Temporal Properties | Autores: Ariel Gonzalez, Maximiliano Cristiá and Carlos Luna | Paper ID: 46.
- Evaluating and Diagnosing Convergence for Stochastic Gradient Langevin Dynamics | Autores: Sergio Hernandez and Juan Lopez | Paper ID: 56.

- Extracting Aspect Opinions from Reviews in Spanish for Aspect-based Recommendations | Autores: Pedro Campos, Javier Canales-Castro, Nathalie Riso and Christian Vidal-Castro | Paper ID: 79.

Martes 16 de noviembre, 11:30 hrs – 13:00hrs.

- CHARLA INTERNACIONAL | DR. ÁLVARO SOTO | COACHING OUR ARTIFICIAL INTELLIGENCE MODELS.

Martes 16 de noviembre, 14:30 hrs – 17:30hrs. – Paralelo A

[TICXED-2021]

- Let's Play: Toward Effective Approaches to Assess Online Inquiry Competences at School Level | Autores: Roberto González-Ibáñez, Luz Chourio-Acevedo, Daniel Gacitúa, Camila Márquez, José Mellado, Fernando Villarreal, Cristóbal Becerra, Jacqueline Köhler, Verónica Proaño-Ríos, Carol Joglar, Catalina Contreras-Moral, Héctor Ponce and Juan Silva | Paper ID: 48.
- A Tool for Automatic Question Generation for Teaching English to Beginner Students | Autores: Martín Morón, Joaquín Scocozza, Luis Chiruzzo and Aiala Rosá | Paper ID: 87.
- Application of Language Technologies to Assist English Teaching | Autores: Bernabé González, Isabel Ivagnes, Joaquín Lejtregger, Luis Chiruzzo and Aiala Rosá | Paper ID: 88.
- Learning object-oriented programming using adaptive educational software | Autores: Rafael Mellado-Silva, Claudio Cubillos and Alfonso Gaete | Paper ID: 107.
- CAI Asynchronous Methodology for Emergency Remote Teaching: An Experience in Introduction to Programming | Autores: Jorge Munoz-Gama, Juan Salas and Valeria Herskovic | Paper ID: 110.
- Methodological approach for monitoring the achievement of Learning Outcomes | Autores: Mauricio Diéguez, Felipe Vásquez, Cristian Figueroa and Ricardo Gacitúa | Paper ID: 112.

Martes 16 de noviembre, 14:30 hrs – 17:30hrs. – Paralelo B

[EFD-2021]

- ¿Cómo medimos la importancia en una red? | Jorge Salas, Estudiante de Doctorado Universidad de Edinburgo.
- REmatch (o cómo aprendí a dejar de preocuparme usar RegEx para extraer información) | Nicolás Van Sint Jan, Estudiante de Magíster en Computación, Universidad Católica de Chile.
- Datos para estudiar la Convención Constitucional | Naim Bro, investigador post-doctoral IMFD, coordinador laboratorio IA en Plataforma Telar; Ivania Donoso, estudiante de Doctorado UC y coordinadora Laboratorio IA en Plataforma Telar.
- Challenge accepted! #MemeChallenge para detectar misoginia en memes | Benjamín Bustos, académico del Depto. de Ciencias de la Computación de la Universidad de Chile, investigador asociado IMFD; Magdalena Saldaña, académica de la Facultad de Comunicaciones UC e investigadora IMFD, y Cristóbal Jaramillo, Estudiante de Ingeniería en Computación, Universidad de Chile.
- Detección de bots: estimación y efectos en la campaña presidencial de Chile 2021 | Marcelo Mendoza, profesor asociado del Departamento de Informática de la Universidad Técnica Federico Santa María, investigador asociado IMFD.
- Interpretabilidad en machine learning con garantías formales | Pablo Barceló, director del Instituto de Ingeniería Matemática y Computacional UC, investigador asociado IMFD; Bernardo Subercaseaux, estudiante de Doctorado Carnegie Mellon University.
- Innovación y Transferencia Tecnológica | Jazmine Maldonado, Directora de Innovación y Transferencia Tecnológica IMFD.

Miércoles 17 de noviembre, 08:30 hrs – 11:20hrs.

[SCCC-2021]

- Generating Entertaining Human-Like Sokoban Initial States | Autores: Hans Schaa and Nicolas Barriga | Paper ID: 32.
- Single-solution based metaheuristic approach to a novel restricted clustering problem | Autores: José Fernández, Manuel Villalobos-Cid, Mario Inostroza-Ponta and Mauricio Marín | Paper ID: 68.

- A multi-objective approach for the protein structure prediction problem | Autores: Sebastián Aliaga-Rojas, Manuel Villalobos-Cid, Marcio Dorn and Mario Inostroza-Ponta | Paper ID: 130.
- An Ant based approach to solve the Electric Vehicle Routing Problem with Time Windows and Partial Recharges | Autores: Andrés Huerta-Rojo, Elizabeth Montero and Nicolás Rojas | Paper ID: 102.
- Parallel Implementation of Median String Algorithms | Autores: Pedro Mirabal, Ignacio Lincolao-Venegas, Mario Castillo-Sanhueza and Jose Ignacio Abreu Salas | Paper ID: 135.
- Unleashing the computational power of FPGAs to efficiently perform SpMV operation | Autores: Federico Favaro, Juan Oliver and Pablo Ezzatti | Paper ID: 57.

Miércoles 17 de noviembre, 11:30 hrs – 13:00hrs.

- CHARLA INTERNACIONAL | DR. SVEN KOENIG | MULTI-AGENT PATH FINDING AND ITS APPLICATIONS.

Miércoles 17 de noviembre, 14:30 hrs – 17:30hrs. – Paralelo A

[TICXED-2021]

- Agile Methodology and Service-Learning: Experience in Engineering in Information and Management Control Students | Autores: Vannessa Duarte, Cristian Vidal, Sergio Contreras and Margareth Cleveland | Paper ID: 113.
- MMLA approach to analyze collaborative work in Lego Serious Play activities | Autores: Aarón Ponce Sandoval, Diego Monsalves Cabello, Fabián Riquelme and Hector Cornide | Paper ID: 120.
- Collaborative platform to facilitate the design of learning modules. First Findings | Autores: Oriel Herrera, Patricia Mejias, Alejandra Cid, Alejandro Guzmán and Iván Topp | Paper ID: 139.
- A virtual platform skin tears learning tool | Autores: Vincent Depassier, Heidi Hevia and Romina Torres | Paper ID: 140.

Miércoles 17 de noviembre, 14:30 hrs – 17:30hrs. – Paralelo B

[AEI-2021]

- Process improvement experience at SERVIU Araucanía | Autores: Samuel Sepúlveda and Ricardo Fuentes | Paper ID: 11.
- SmartWork Inclusive System: an Experience Report | Autores: Cristian Vidal, Vicente De Orúe, Aliwen Melillán, Pablo Valenzuela-Toledo and Samuel Sepúlveda | Paper ID: 13.
- Marketing improvement in a Chilean Retail Company using Uplift Modeling with neural networks | Autores: Miguel Lopez, Josue Ruiz, Luis Caro, Orietta Nicolis and Billy Peralta | Paper ID: 85.
- LibreDTE: Software Tools and Support for Electronic Invoicing in Chile | Autores: Esteban De La Fuente and Miguel Gutierrez Gaitan | Paper ID: 125.

Jueves 18 de noviembre, 08:30 hrs – 11:20hrs.

[SCCC-2021]

- Estimation of SIMCE Test Performance with Socioeconomic Data using Ordinal Classifiers | Autores: Andrés Flores-Iturra and Julio Rojas-Mora | Paper ID: 111.
- School Community Remote Education Readiness Assessment Framework | Autores: Ibet Lara and Hernán Astudillo | Paper ID: 81.
- Classification of Chileans public hospitals based on healthcare production using clustering techniques | Autores: Juan Giglio, Gabriel Gaete-Lucero and Manuel Villalobos-Cid | Paper ID: 69.
- The risks of AI and ethical considerations from the Human Scale Development approach | Autor: Cristian Colther | Paper ID: 122.
- Guideline for Web pages design inclusive for senior users | Autores: Liubov Dombrovskaja and Alejandro Vilches | Paper ID: 129.
- Predicting nuclear fuel parameters by using machine learning techniques | Autores: Juan Cabezas, Xaviera López-Cortés and Iván Merino | Paper ID: 137.

Jueves 18 de noviembre, 11:30 hrs – 13:00hrs.

- CHARLA INTERNACIONAL | DRA. ORIETTA NICOLIS | DEEP LEARNING METHODS: SOME APPLICATIONS TO SIGNAL AND IMAGE PROCESSING.

Jueves 18 de noviembre, 14:30 hrs – 17:30hrs. – Paralelo A

[TD & I 4.0]

- Charla | Cesar Espíndola Arellano | Big Data ULS: Bienes públicos de información para decisiones territoriales en la Región de Coquimbo.
- Charla | Rodrigo Olivares Pérez | El desafío de las ciudades intermedias para convertirse en Smart Cities. Caso Conurbación Serena Coquimbo.
- Charla | Humberto Farias Aroca | Numera, inteligencia artificial de borde (EDGE AI) al servicio de la comunidad.
- Charla | Cesar Villegas | UNIVRSO: Fortaleciendo el turismo astronómico de la Región de Coquimbo a través de la realidad virtual.
- Charla | Carlos Alvarado | A2G.IO – Plataforma IIOT de alta disponibilidad para aumentar la calidad de procesos y minimizar pérdidas de diversa índole, a través de interoperabilidad, accesibilidad, analíticas en tiempo real y automatización en la nube.

Jueves 18 de noviembre, 14:30 hrs – 17:30hrs. – Paralelo B

[ET-2021]

- Charla | Domingo Mery | Técnicas para una Comunicación Científica Efectiva.
- Palm vein image modeling for evaluation of biometric identification algorithms | Autor: Edwin Salazar | Paper ID: 124.
- Deep Learning para la Estimación de Precios en la Industria del Salmón en Chile | Autores: Roberto Villarroel and Pedro Campos | Paper ID: 138.
- Visual recognition incorporating features of self-supervised models for the use of unlabelled data | Autor: Gabriel Díaz | Paper ID: 142.
- Framework de arquitectura de big data para apoyar la gestión de incendios forestales en la región de la araucanía | Autores: Felipe Vásquez and Ania Cravero | Paper ID: 143.

Jueves 18 de noviembre, 18:00 hrs – 19:30hrs.

- ASAMBLEA - SOCIEDAD CHILENA DE LA CIENCIA DE LA COMPUTACIÓN.

Viernes 19 de noviembre, 08:30 hrs – 11:20hrs.

[LMN-2021]

- Fingerprint Classification through Standard and Weighted Extreme Learning Machines | Autores: David Zabala-Blanco, Marco Mora, Ricardo Barrientos, Ruber Hernández-García and José Naranjo-Torres | Paper ID: 2.
- Improving RTS Game AI by Supervised Policy Learning, Tactical Search, and Deep Reinforcement Learning | Autor: Nicolas Barriga | Paper ID: 5.
- Saliency for free: Saliency prediction as a side-effect of object recognition | Autor: Carola Figueroa | Paper ID: 34.
- Linear separability in spatial databases | Autores: Gilberto Gutiérrez, Claudio Torres and Pablo Perez-Lantero | Paper ID: 90.
- Diversity, Fairness, and Sustainability in Population Protocols | Autor: Nicolas Rivera | Paper ID: 91.
- An efficient algorithm for approximated self-similarity joins in metric spaces | Autor: Benjamin Bustos | Paper ID: 94.

Viernes 19 de noviembre, 11:30 hrs – 13:00hrs.

- CEREMONIA DE CLAUSURA.
- CHARLA INTERNACIONAL | DR. GEORGIOS N. YANNAKAKIS | AI AND GAMES: IT TAKES TWO TO TANGO.

Viernes 19 de noviembre, 14:30 hrs – 17:30hrs.

[LMN-2021]

- FM-CF: A framework for classifying feature model building approaches | Autores: Ricardo Gacitua, Samuel Sepulveda and Raul Mazo | Paper ID: 95.
- Using Dissemination and Implementation Strategies to Evaluate Requirement Elicitation Guidelines: A Case Study in a Bed Management System | Autores: Gaston Marquez and Carla Taramasco | Paper ID: 126.
- Where are You? Exploring Micro-Location in Indoor Learning Environments | Autores: Fabián Riquelme, Rene Noel, Hector Cornide Reyes, Gustavo Geldes, Cristian Cechinel, Diego Miranda, Rodolfo Villarroel Acevedo and Roberto Muñoz | Paper ID: 128.
- Bi-Objective optimisation over a set of convex sub-problems | Autor: Guillermo Cabrera-Guerrero | Paper ID: 92.
- A multi-objective linear threshold influence spread model solved by swarm intelligence-based methods | Autores: Rodrigo Olivares, Francisco Muñoz and Fabián Riquelme | Paper ID: 22.
- The patient bed assignment problem solved by autonomous bat algorithm | Autores: Carla Taramasco, Rodrigo Olivares, Roberto Muñoz, Ricardo Soto, Matias Villar and Victor de Albuquerque | Paper ID: 105.
- Ant Colony Clustering for ROI Identification in Functional Magnetic Resonance Imaging | Autores: Alejandro Veloz, Alejandro Weinstein, Stefan Psczolkowski, Luis Hernández-García, Rodrigo Olivares, Roberto Muñoz and Carla Taramasco | Paper ID: 127.