



# PAN AMERICAN RESEARCH IN ADDITIVE GLOBAL MANUFACTURING CONFERENCE



PONTIFICIA  
UNIVERSIDAD  
CATÓLICA  
DE CHILE



Organizada por:  
**ESCUELA DE INGENIERÍA, DISEÑO &  
VICERRECTORÍA DE INVESTIGACIÓN**

CONFERENCIA PANAMERICANA SOBRE MANUFACTURA ADITIVA E IMPRESION 3D

**SESION PLENARIA SEPTIEMBRE 24 DE 8:45 am -12:45 pm**

Auditorio Luksic - Campus San Joaquin - Av. Vicuña Mackenna 4860 - Santiago

**ENTRADA LIBERADA**

Mayor información sobre sus sesiones técnicas y eventos: [jramos@ing.puc.cl](mailto:jramos@ing.puc.cl)

En colaboración con:



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# PARADIGMA (PAN AMERICAN RESEARCH IN ADDITIVE GLOBAL MANUFACTURING)

Additive Manufacturing, originally known as Rapid Prototyping and later 3D Printing, has spread worldwide and is today considered as one of the main drivers for the 4<sup>th</sup> Industrial Revolution across the globe. Within and inside the Americas, additive manufacturing will transform our economic growth, thus a new industrial paradigm is to be set, do not lose the opportunity of being part of this New World adventure, PARADIGMA 2019

La Manufactura Aditiva, conocida originalmente como Prototipado Rápido y luego Impresión 3D, se ha esparcido a través del mundo y es considerada hoy como una de las principales impulsoras de la 4ta revolución industrial. Entre y adentro de las Américas, la manufactura aditiva transformará nuestro crecimiento económico, imponiendo un nuevo paradigma industrial, así que no te pierdas la oportunidad de ser parte de esta aventura en el Nuevo Mundo, PARADIGMA 2019

# PARADIGMA 2019

## **Organization Comittee:**

Jorge Ramos-Grez (School of Engineering PUC)

Fernando Auat-Cheein (Department of Electronic Engineering UTFSM)

Eric MacDonald (College of STEM YSU)

Oscar Huerta (School of Design PUC)

PARADIGMA  
2019

# CONFERENCE INFORMATION

## Location

San Joaquín Campus in Macul, Santiago, Chile (by the Metro Station San Joaquín Línea 5)

## Activities

- Plenary session on Tuesday morning at the Luksic Auditorium at Campus San Joaquín
- 3 Technical sessions: Tuesday 24th afternoon and Wednesday 25th morning and afternoon at the Anacleto Angelini Innovation Center at Campus San Joaquín
- Networking tour & banquet on Tuesday 24th at Santa Rita vineyard
- Topics covered as per technical session:
  - Metals and Functional Materials for Additive Manufacturing in Offshore Applications
  - Automation, Design and Instrumentation for Additive Manufacturing Innovation
  - Ceramics, Composites & Polymers in AM for Structural Systems & Next Generation Batteries
- Workshop by Graduate Students and Industry Representatives on Thursday 26th morning at Campus San Joaquín
- Visit to LEiTAT 3D Printing Center

## Registration:

Registration can be completed by emailing [jramos@ing.puc.cl](mailto:jramos@ing.puc.cl)

Registration fee is \$240 USD for professionals and \$80 for students, banquet fee is \$85. Fee to attend each technical session separate \$100.-

Amounts to be pay by credit/debit card in Chilean pesos (currency rate of 1 US\$ = 700 CL\$.) at [www.paradigma.dictuc.cl](http://www.paradigma.dictuc.cl): fields required to fill at the Webpay.cl page: Item identification, id card or passport #, full name, e-mail address, brief description of items paid.

Payment will also be collected by credit/debit card at the conference venue for both US\$ and CL\$.

Waivers will be offered on a case by case basis.

## Recommended hotels:

Crowne Plaza Santiago Hotel  
Av Libertador Bernardo O'Higgins 136, Santiago,  
Phone +56 2 26381042

Four Points by Sheraton Hotel  
Santa Magdalena 111, Providencia, Santiago  
Phone +56 2 2750 0300

## Organizer:

Pontificia Universidad de Chile, Escuela de Ingeniería, Diseño & Vicerrectoría Académica

## In collaboration with:

Universidad Técnica Federico Santa María & Youngstown State University

## Supported by:

US Army, ONR Global and CCDC-Americas after AFOSR-SOAR

## Sponsored by

Ing2030 The Clover, AC3E, DICTUC SA, LEiTAT, STRATASYS & WENCO

## For Inquires:

Contact: Prof. Jorge Ramos-Grez / María Paz Santander

Campus San Joaquín / Av. Vicuña Mackenna 4860 Macul Santiago CHILE

Email: [jramos@ing.puc.cl](mailto:jramos@ing.puc.cl); [mpsantander@ing.puc.cl](mailto:mpsantander@ing.puc.cl)

Phone: +56 2 2354 4229

WEBPAGE: [www.paradigma.dictuc.cl](http://www.paradigma.dictuc.cl)

## MONDAY 23<sup>rd</sup> EVENING

Speakers Informal Meet and Greet

19:00 – 21:30

## TUESDAY 24<sup>th</sup> MORNING Plenary Session

At the Luksic Auditorium at San Joaquín Campus

8:00- 9:00 Registrations and credentials

9:00-9:10 Jorge Ramos-Grez brief welcome words to PARADIGMA 2019

9:10-9:30 Opening words by Conrad von Igel (Former Vice President of CORFO, Director of Anacleto Angelini UC Innovation Center)

9:30-10:00 Eric MacDonald (Youngstown State University, USA)

10:00-10:10 Q&A

10:10-10:40 David Bourell (University of Texas at Austin, USA)

10:40-10:50 Q&A

10:50-11:10 Short coffee break (Sponsored by Ingenieria 2030 The Clover)

11:10-11:40 Magí Galindo (LEiTAT, Spain)

11:40-11:50 Q&A

11:50-12:20 Mohsen Mohammadi (University of New Brunswick, Canada)

12:20-12:30 Q&A

12:30-12:40 Closure words by PUC Vice Dean of Engineering Professor Loreto Valenzuela

## TUESDAY 24<sup>th</sup> AFTERNOON Technical Session: Metal and Functional Materials for Additive Manufacturing in Offshore Applications

At the Innovation Center Principal Auditorium (James Zunino, CCDC USA)

2:00-2:30 Mohsen Mohammadi (School of Engineering UNB, Canada)

2:30-3:00 Jorge Ramos-Grez (School of Engineering PUC, Chile)

3:00-3:30 Luis Reyes (Universidad Autónoma de Nuevo León, México)

3:30-3:50 Caroline Vail (NSWC Carderock, USA)

3:50-4:10 Coffee Break (Sponsored by Stratasys)

4:10-4:40 Juan Ramírez Rodríguez (School of Engineering UANL, México)

4:40-5:10 Sergio Ríos (School of Engineering U de Magallanes, Chile )

5:10-5:40 David Bourell (College of Engineering UT Austin, USA)

5:40-6:00 Julio Vergara (former chilean Navy Captain, PUC) Next steps & actions towards AM in Offshore Applications

## TUESDAY 24<sup>th</sup> EVENING

18:30 Bus departure from San Joaquín Campus

19:30 Arrival at Santa Rita vineyard

19:30-21:30 Tour and BBQ-dinner at Santa Rita vineyard (sponsored by Stratasys & Wenco). Bus returns to Crowne Plaza Hotel.

## WEDNESDAY 25<sup>th</sup> MORNING Technical Session: Automation, Design and Instrumentation for Additive Manufacturing Innovation

At the Innovation Center Principal Auditorium (Moderator Giancarlo Troni, PUC Chile)

9:00-9:30 Eric MacDonald (College of STEM YSU, USA)

9:30-10:00 Ciro Rodríguez (School of Engineering, Tecnológico de Monterrey, México)

10:00-10:30 Fernando Auat Cheein (Department of Electronic Engineering UTFSM, PI of the AC3E, Chile)

10:30-11:00 Coffee Break (Sponsored by Stratasys)

11:00-11:30 Magí Galindo (LEiAT Spain)

11:30-12:00 Omar López (Universidad Autónoma de Nueva León, México)

12:00-12:30 Miguel Torres (School of Engineering PUC, AC3E, Chile)

12:30-13:00 Oscar Huerta (School of Design PUC, Chile) Next steps & actions for Additive Manufacturing Innovation

## WEDNESDAY 25<sup>th</sup> AFTERNOON Technical Session: Ceramics, Composites & Polymers in AM for Structural Systems & Next Gen Batteries

At the Innovation Center Auditorium (Moderator Joseph Scott, USA)

2:00-2:25 Christopher Hansen (Mechanical Engineering UML, USA)

2:25-2:50 Juan Cristóbal Zagal (School of Engineering University of Chile)

2:50-3:15 Paulo Sollero (School of Engineering, University of Campinas, Brasil)

3:15-3:40 Pedro Cortés (College of STEM YSU, USA)

3:40-4:10 Coffee Break (Sponsored by Wenco)

4:10-4:35 Scott Kimmins (Institute of Engineering, Biology & Medicine, PUC Chile)

4:35-5:00 Donghai Wong (School of Engineering PSU, USA)

5:00-5:25 Alexis Maurel (Université de Picardie Jules Verne, France)

5:25-5:50 Patricio Romero (School of Engineering PUC, Chile) Next steps & action towards AM for Energy Storage & Structural Systems

## THURSDAY 26<sup>th</sup> MORNING Workshop by Graduate Students & Industry Representatives

At the Luis Crisosto room (Moderator Jorge Ramos-Grez)

8:30-10:00 Graduate students (Brasil, México, Chile & other latam countries) 10 minutes presentations

10:00-10:30 Coffee Break (Sponsored by Wenco)

10:30-11:20 Experts meet Graduates

11:20-11:45 Industry speaker Felipe Cevallos CEO Reborn Electric: Future manufacturing R&D opportunities in Chile

11:45-12:10 Industry speaker Ignacio Jeria CTO AMLAPS: Survey of 3D Printing needs for inventory supply chain reduction

12:10-12:35 Industry speaker: Future lithium R&D opportunities

12:35-13:00 CORFO representative: What are the next steps to follow to reindustrialize Chile?

13:00-14:00 Grab your lunch bag & networking (Sponsored by Ing2030 The Clover)

14:00-14:20 Bus departs Campus San Joaquín towards LEiTAT

14:20-17:00 Arrival to LEiTAT Head Quarters in Providencia and visit 3D Printing Center