

XVIII SYMPOSIUM OF MEXICAN STUDIES AND STUDENTS IN THE UK

SYNERGY, THE LINK TO THE FUTURE

01- 02 JULY, 2021



Thank you to our co-sponsors, local hosts and supporters



División de Ciencias Sociales y Humanidades



Welcome to the XVIII Symposium of Mexican Studies and Students in the UK

On behalf of the Society of Mexican Students in the United Kingdom, we are delighted to welcome you all to the XVIII Symposium of Mexican Studies and Students in the UK in a friendly, dynamic, diverse and inclusive platform.

The Symposium of Mexican Studies and Students in the United Kingdom, an annual multidisciplinary event that brings together more than 250 researchers. The Symposium is a space for scientific and academic dissemination intended for students, researchers, research centres and companies interested in the scientific, technological and multidisciplinary development to promote collaborations between Mexico and the United Kingdom. The symposium will feature a wide range of keynote talks, inter-disciplinary panel discussions, oral presentations, academic posters, and networking opportunities.

This year, the symposium will be hosted by the Mexican Society at the University of Nottingham. Our main theme is 'Synergy, the Link to the Future'. The Oxford dictionary defines the word "synergy" as the collaboration of two or more agents to produce a combined effect greater than the sum of their separate effects. The organising committee decided to use this word to highlight the importance of the interaction between the disciplines. We are stronger together and our knowledge works better when we share it, discuss it, integrate it and apply it. We believe that indeed, working together (in synergy) is the right path to a better future.

This event has the support of the Mexican government through the Embassy of Mexico in the United Kingdom, the National Council of Science and Technology (CONACyT), the University of Nottingham, UK, the Mexican Cultural Centre (MCC) in the United Kingdom, the Centre for Mexican Studies of the UNAM in the United Kingdom, among other major academic and cultural institutions.

Jorge A. Llamas Orozco
Chair of the Organising Committee



General Information

Venue

Gathertown

Etiquette for virtual symposium

Test your setup.

Mute microphone when joining the event, doing this cuts down on distracting background noise.

Language of the Symposium

The official language of the Symposium is English; however, some session might be in Spanish.

Refreshment breaks

Coffee break rooms will be available on the platform.

Certificate of attendance

A certificate of attendance will be sent by email to you in the week following the Symposium.



Get involved at MXSymposium21

Facebook Live!

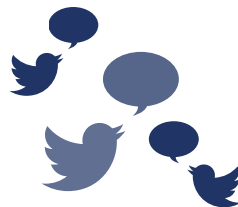
@symposiumMXinUK



We will be talking to our speakers throughout the week to get their thoughts and reactions on the debates and discussions at the Symposium, so make sure you follow us on Facebook and invite colleagues, partners and networks to join the conversation from afar!

Social media

@MX_Symposium



Engage at the Symposium on social media by sharing interesting links, images and videos using #mexinUK21.

All your tweets will be shared on Instagram and Twitter wall, highlighting the latest messages and insights in real-time!

PROGRAMME THURSDAY 1 JULY

13:00
Room 1

Opening Ceremony, Welcome to Symposium 2021

H.E. Josefa González Blanco Ortiz Mena

Mexican Ambassador to the United Kingdom

TBC

CONACYT

Prof. Robert Mokaya

Pro-Vice-Chancellor for Global Engagement

University of Nottingham

Raul Zepeda Gil

President of the MexSocUK

Jorge Llamas

Chair of the XVIII Symposium of Mexican Studies and Students in the UK

13:30
Room 1

Panel Discussion: "Bilateral Academic Collaboration MX-UK"

Rodrigo Meléndrez

Head of Cooperation & Education Affairs

Embassy of Mexico to the United Kingdom

Arturo Mendoza

Head of Newton Fund, Mexico

Prof. Ana Elena González Treviño

Director Centre for Mexican Studies, UNAM-UK

King's College London

Omar Sainz

President of Red Global MX-UK

Emma Palfreyman

International Relations Officer to the Americas

University of Nottingham

Dr. Jesús Baca Plasencia

Atracción de Talento Académico

Tecnológico de Monterrey

Moderator:

Raúl Zepeda Gil

President of MexSocUK

14:30
Room 2

"The role of Vaccines in the history of humanity"

Prof. Alejandro Madrigal

MD, PhD, FRCP, FRCPath, DSc, HonDSci, FMedSci, D.h.c.

University College London

Moderator:

Paulyna Magana

*PhD student, Pharmacy
University of Nottingham*

All times are London time BST (British Summer Time), which is GMT+1.
The organisers reserve the right to alter timings if necessary.



6

15:10
Room 1

Panel Discussion: "Energy Transition"

Dr. Jon Mckechnie

Assistant Professor, Faculty of Engineering
University of Nottingham

Juan Manuel Avila

CEO & Co-Founder of Top Energy Mexico

Guillermo Zuñiga

International Energy Transition Consultant at
Earthjustice

Moderator:

Jorge Llamas

PhD student, Sustainable Energy Technology
University of Nottingham

15:10
Room 2

"Design, Innovation and Competitiveness"

Dr. Julio Frias Peña

Director Premio Nacional de Diseño: Diseña Mexico
UNAM

15:40
Room 2

"Understanding Science Diplomacy in the Global South: an opportunity for the Mexican diaspora"

Mtro. Parsifal Islas Morales

Secretario Ejecutivo

Cátedra de Diplomacia y Patrimonio de la Ciencia de la Ciudad
de Mexico

16:10

Oral Presentations

ENGINEERING

Room A

CHEMISTRY

Room B

ARTS & HERITAGE

Room C

POLICY

Room D

17:40

BREAK

17:45
Room 1

Panel Discussion: "Water Diplomacy"

Dr. Blanca Jimenez

UNAM

Prof. Rachel Gomes

Professor of Water & Resource Processing
Faculty of Engineering
University of Nottingham

Moderator:

Dr. Andrea Garduño Jimenez

Wastewater Treatment and Reuse
University of Nottingham

18:45
Room 1

Panel Discussion: "Manufacturing Engineering"

Omar Lopez-Botello

CEO and Co-Founder of AMMA3D and Researcher at Tec de
Monterrey Expert in Additive Manufacturing

Laura Ruiz Cantu

Transitional Assistant Professor, Faculty of Engineering,
University of Nottingham

Dalia Carolina Ramos

Head of build and test at Alpine F1 Team

Javier Dominguez-Caballero

Advanced Manufacturing Research Centre
Technical Lead of the University of Sheffield

Moderator:

Cristina Ferro-Barbosa

PhD Manufacturing Engineering,
University of Nottingham

18:45
Room 2

"Challenges for changing the representation of Indigenous Peoples in Mexican Cinema" and short film: "Time and the Seashell"

Dr. Itandehui Jansen

Lecturer Film & TV

Edinburgh College of Art, The University of Edinburgh



ORAL PRESENTATIONS

THURSDAY 1 JULY

Room A ENGINEERING

Moderator:
Dr. Fernando Pérez-Cota
RAEng Research Fellow
University of Nottingham

16:10 Electrical impedance
methods plan root
phenotyping

Diego Corona López
The University of Manchester

16:25 Biomimetic materials for
hydrogen production

Samantha L Peralta Arriaga
University of Sheffield

16:40 Porous and dense magnetic
microspheres developed via
a flame-spheroidisation
method

Jesus Molinar Diaz
University of Nottingham

16:55 Coherence scanning
interferometry for additive
manufacturing

Carlos Alberto Gomez Moreno
University of Nottingham

17:10 Designing, Modelling and
Biofabrication of Scaffolds for
Osteochondral Defect Repair

Cristina Ferro-Barbosa
University of Nottingham

17:25 Statistical Predictive
Modeling of the Morphology
of Inkjet-printed Dielectric
Tracks

Juan Francisco Reyes Luna
University of Nottingham

Room B CHEMISTRY

Moderator:
Dr. Andrea Garduño Jimenez
Wastewater Treatment and Reuse
University of Nottingham

Release of Fragmented Fibre
Pollution from Common
Textile Materials and
Structures during Laundry

Alma Victoria Palacios Marín
University of Leeds

Plants on the Pill: We are
what we eat, but do we know
what we are eating?

**Andrea Lorena Garduño
Jimenez**
University of Nottingham

Microwave-assisted polymer
synthesis for applications in
the high performance
coatings sector

Jessica Vidales Herrera
University of Nottingham

Wastewater Treatment Plants
as a Source of Microplastic

**Guadalupe V. Landeros
Gonzalez**
University of Southampton

Room C ART & HERITAGE

Moderator:
Jose Gustavo Berumen Salazar
PhD in Digital Economy
University of Nottingham

The synergy of the actors
with symbolic power to
define the culinary heritage
policy of Mexico.

Brisol Garcia Garcia
Universidad Intercultural del
Estado de Puebla

Colonial and decolonial
imaginaries to consider in
the shape of cultural
communitarian development
initiatives. The case for
batalla de Tlatoanis,
promoting Nahuatl through
content creation, didactical
design and hip-hop music
production.
Aristeo Pantoja Diaz
UNAM

'Arte: arma de construcción
masiva' by cerrucha. the
consolidation of a new
artistic speech

Natalia Stengel Peña
Kings College London

Redefining our Life-at-Home
Using Human Centred
Design

Carla Resendiz Villaseñor
Teesside University

Consumption and social use
practices of Hallyu through

Adriana Robledo Sánchez
Universidad Autónoma de
Querétaro, México. UAQ

Room D POLICY

Moderator:
Dr. Carlos Osorio Sandoval
Mechanical, Aerospace and Civil
Engineering
University of Manchester

Understanding multiple
outcomes for the design of
healthcare systems: a
participatory approach

Irma Cecilia Landa-Avila
Loughborough University

Influence of health experts in
the process of two obesity
prevention policies: results
of a first round of interviews

Anette Bonifant Cisneros
University of York

Creating Social Impact
Synergy Through the
Implementation of Trans-
institutional Strategies in the
Oaxacan Mixtec, Mexico.

Iliana Herrera Arellano
Universidad Tecnológica de la
Mixteca

The Legislative Functions of
the Executive: a Breach in
the Principle of Separation of
Powers?

Sonia Anaid Cruz Davila
King's College London

Total Factor Productivity
(TFP) in the Mexican
Manufacturing (1993-2018):
trend, determinants and
spatial distribution.

Emmanuel Ramirez Guerra
Durham University



8

PROGRAMME FRIDAY 2 JULY

09:00 **"Proyecto Mezquite: empowering communities and addressing global challenges"** Room 1 Room 2 **"A digitization journey in the railway sector"**

Dr Zinnia Gonzalez-Carranza
School of Biosciences
University of Nottingham

Victoria Navarro Franco
Co-Founder & CTO
OmniSavy UG

09:40 **Oral Presentations**

CLIMATE ENGINEERING
& COMPUTER SCIENCE
Room A

ENGINEERING
& PHYSICS
Room B

POLITICS
Room C

HISTORY
Room D

11:00 **BREAK**

11:10 **"Green Energy from wastewater "** Room 1

Dr. Sharon Velasquez Orta
School of Engineering
Newcastle University

Room 2 **"Two Hundred Years of Synergy: El periquillo sarniento and the Invention of the Mexican Individual"**

Dr. Adam Sharman
School of Cultures, Languages and Area Studies
University of Nottingham

11:50 **"The new profile of the young researchers and their role in the post-pandemic era"** Room 1

Dr. David Oliva Uribe
General Secretary of the European Association of Power Electronics
Principal External Advisor of CONACYT
Co-founder of the EUMex-Connect Consulting Company

12:30 **Oral Presentations**

LIFE SCIENCES
Room A

BUILDING ENVIRONMENT
ENGINEERING
Room B

REGULATION &
JUSTICE
Room C

BUSINESS &
ECONOMICS
Room D

13:45 **Carlos Fuentes Award** Room 1

A recognition to the most outstanding Mexican student/researcher of the year in the United Kingdom

Moderator:
Raul Zepeda Gil
President of the MexSocUK

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9



14:15 **Career Opportunities**

Room 2

Dr. Ricardo Guerra Sánchez
Director General CIATEC

14:35 **Dr. Jesús Baca**
Atracción de Talento Académico
Tecnológico de Monterrey

14:55 **Poster Session**

Room P

15:30 **Panel Discussion:**
Room 1 **"Vaccines and Therapy: the Gateway to ending the SARS-COV2 Pandemic"**

Dr. Teresa Cutino-Moguel
DipLSHTM, MSc, PhD, FRCPath
Virology Clinical Lead
Barts Health

Carlos Sanders, MD.
PhD student, Pharmacy
University of Nottingham

Dr. Alejandro Sanchez-Flores
Head of Core Facility
Unidad de Secuenciación Masiva y Bioinformática
UNAM

Moderator:
Paulyna Magana
PhD student, Pharmacy
University of Nottingham

Panel Discussion:
Room 2 **"Paths for career development in Business, Finance, and Technology"**

Victor Sánchez
Director Red OTT

Gabriel Anguiano
Chairman of the Mexican Chamber of Commerce in Great Britain

Liliana Reyes
Executive Director AMEXCAP

Moderator:
Rodrigo Meléndrez
Head of Cooperation & Education Affairs
Embassy of Mexico to the United Kingdom

16:10 **Panel Discussion:**
Room 1 **"Digital culture and Big data in Mexico"**

Dr. Ernesto Schwartz
University of Exeter

Dr. Lidia Garcia Gonzalez
Universidad de Guanajuato

Moderator:
Gisela Reyes-Cruz
PhD Computer Science
University of Nottingham

"Profesionals in Mexico; new trends for professional work after COVID."

Prof. Beatriz Bustos
Departamento de Estudios Socio-Urbanos
Universidad de Guadalajara

16:50 **Closure and Invitation to 2022**

Room 1

Jorge Llamas
Chair of the XVIII Symposium of Mexican Studies and Students in the UK
PhD student, Sustainable Energy Technology
University of Nottingham



ORAL PRESENTATIONS

FRIDAY 2 JULY

Room A CLIMATE ENGINEERING & COMPUTER SCIENCE

Moderator:
Mariana Gaytan Camarillo
PhD in Environmental Psychology
University of Nottingham

- 09:40 Twitter and actions to combat climate change during the COVID-19 pandemic.
Mariana Gaytan Camarillo
University of Nottingham
- 09:55 Petrography of the Permian Yellow Sands of County Durham: Impact of the Zechstein transgression and implications for reservoir quality
Joel Lozano-Perez
University of Durham
- 10:10 Cooking as a Network of Interconnected Elements: Exploring Design Opportunities for Fast-Moving Consumer Goods
Gustavo Berumen
University of Nottingham
- 10:25 The variable renewable energy sources potential in Mexico: A temporally evaluated and geospatially constrained techno-economical assessment
Edgar Ubaldo Pena Sanchez
Julich Research Institute - Institute of Energy and Climate Research
- 10:40 Towards Technology design that supports the competencies of people with visual impairments
Gisela Reyes Cruz
University of Nottingham
- 10:55 Multiview Transformers for Object Detection
Brian Kostadinov Isaac Medina
University of Durham

Room B ENGINEERING & PHYSICS

Moderator:
Jesús Molinar Díaz
PhD in Materials Engineering and Materials Design
University of Nottingham

- Echo mapping of Supermassive Black Holes
Juan V. Hernández Santisteban
University of St. Andrews
- Are we able to see the very first stars ever formed in the Universe?
Teresita Suarez Noguez
University of Edinburgh
- OPTICAM: A Triple-Camera Optical System Designed to Explore the Fastest Timescales in Astronomy
Juan V. Hernández Santisteban
University of St. Andrews
- High-throughput phenotyping of carbon assimilation: Scaling traits from leaves to canopies in wheat
Carlos A. Robles Zazueta
University of Nottingham
- Investigation of active thermal control system for small satellites
Dafne Gaviria Arcila
The University of Nottingham

Room C POLITICS

Moderator:
Cristina Ferro-Barbosa
PhD Manufacturing Engineering,
University of Nottingham

- Corruption risks in public procurement contracts: what happens once a contract is awarded?
Irasema Guzmán Orozco
University of Sussex
- Do electoral cycles boost corruption? An overview of corruption risks in public procurement procedures at a municipal level in Mexico during electoral and non-electoral years.
Álvaro Quintero Casillas
University of Sussex
- Universal Basic Income in Mexico: Political obstacles for its implementation
Kevin Zapata Celestino
University of Edinburgh
- The relation between Central Bank and financialisation in Mexico. A comparative perspective towards the political economy of financialisation in emerging markets.
Jorge Andrés Quintero Sanchez
University of Warwick
- "Why Climate Change is a Gender and LGBTQ+ Issue?"**
Room C
Jessica Muñoz
University of Birmingham
Antonio Romero Rubio
London School of Economics

Room D HISTORY

Moderator:
Jessica Vidales Herrera
PhD in Chemical Engineering
University of Nottingham

- Wisdom, language and worldview in Aztec philosophy
Osiris Sinuhé González Romero
Leiden University
- Is the virtual development of spiritual intelligence possible?
Aimeé Granados Pavón
Universidad de Querétaro
- Climatic change in the central Mayab (Laguna Esmeralda) recorded away from major human impact
Haydar Martinez-Dyrzo
University of Nottingham
- "Elizabeth Ward and the Mexican Landscape in 1826".
Cony Marquez
University of Arizona
- Moderator:
Fernando Champion
Mexican Embassy



ORAL PRESENTATIONS

FRIDAY 2 JULY

Room A LIFE SCIENCES

Moderator:
Paulyna Magana
PhD in Pharmacy
University of Nottingham

12:30 In vitro modelling of neuroblastoma using human pluripotent stem cells.

Ingrid M. Saldana-Guerrero
University of Sheffield

12:45 Understanding the role of JAZMONATE ZIM DOMAIN proteins in plant stress-response and development.

Eva Karina Díaz-Sánchez
Royal Holloway University of London

13:00 SMGBS as novel in vitro anti-infective agents for acanthamoeba spp. Infections

Alemao Carpinteyro Sanchez
University of Strathclyde

13:15 Tuberculosis and "The Masque of the Red Death"

Lorena Carmona Hernández
UNAM ENP8

13:30 The use of acids or bases for applications of dissolution and disintegration of human tissues

Mayra Stefania Gómez González
UNAM ENP8

Room B BUILDING ENVIRONMENT ENGINEERING

Moderator:
Jesús Molinar Díaz
PhD in Materials Engineering and Materials Design
University of Nottingham

Social value meets digital construction

Jose Salazar-Vela
University of Loughborough

Thermal comfort optimization in post-disaster social housing in the Yucatan Peninsula

Yarely Aguilar Perez
University of Nottingham

BIM-Based construction safety risk knowledge base for prevention through design

Carlos Osorio
Thomas Ashton Institute
University of Manchester

Air in filtration modeling based on low-pressure airtightness measurements

Alan Vega Pasos
University of Nottingham

A Tale of Two Schools: Handling Separate Lives as a Mature Research Student

Mario Alberto Moreno Rocha
University of St. Andrews

Room C REGULATION & JUSTICE

Moderator:
Dr. Armando Mendez Villalon
Research Fellow, Bioengineering
University of Nottingham

Community value added (CAV) a strategy to encourage sustainable rural livelihoods (MVS)

Martín Reyes García
Karen Durán Mendoza
Universidad Tecnológica de la Mixteca

The barriers on-in operation based regulation and evaluation system in Mexico's social housing typology. (Analysis of eco-technologies)

Yaressi Alejandra Treviño Garza
University College London

Humour peacebuilding: the use of humour as an (1) Informative mobilizer, (2) Healing aid and (3) Process tool in contemporary Mexico

Fernando Castro Escobar
Lancaster University

Justice by own hand from legal point of view

Trujillo Juanita Quetzalli
UNAM, ENP 8

The Remakings of Femicide Data

Saide Mobayed
University of Cambridge

Room D BUSINESS & ECONOMICS

Moderator:
Fatima Lopez Castellanos
PhD in Business and Management
University of Nottingham

Effects of oil-price modelling approach on the economics of instruments to procure financial security for decommissioning

Arturo Regalado
University of Aberdeen

Institutional change in producer economies and the global energy transition: the emergence of a strategic challenge for Mexico's National Oil Company

Rafael Alejandro Vaquera Salazar
University of Warwick

Labour conditions amongst cultural producers of Mexico City: job insecurity and uncertainty

Alejandra Jaramillo-Vázquez
Universidad Autónoma Metropolitana

Community Added Value (CAV) as a strategy to implement a new business model that allows Local Economic Development (LED)

Karen Durán Mendoza
Universidad Tecnológica de la Mixteca



12

POSTER SESSION

14:55

Room P

- 1.- **"Hydrogen - Energy system integration through artificial intelligence"**
Eduardo E. Gonzalez Osuna
Durham University
- 2.- **"Review on mechanical design parameters for self-starting vertical axis wind turbines"**
Francisco E. Aguerrebere Gonzalez
Durham University
- 3.- **"A novel in vitro system for modelling the development of human tissues using human pluripotent stem cells"**
Alejandro Hidalgo Aguilar
Durham University
- 4.- **"Scaling relationship and computational catalysts design for HDO processes"**
Fabian Morteo Flores
Cardiff University
- 5.- **"Bioengineering a novel UV-induced skin model to mimic the effect of environmental stressor on skin health"**
Paola de los Santos Gomez
Durham University
- 6.- **"Blind bolted connections using the extended hollo-bolt: A Review"**
Manuela Cabrera
University of Nottingham
- 7.- **"First precipitation palaeoclimatic record based on $\delta^{18}O$ for the Late Holocene in Maya Highlands"**
Haydar Martinez-Dyrzo
University of Nottingham
- 8.- **"Targeting DNA replication enzyme in microbial pathogens"**
Arturo Landeros de la Isla
University of Sheffield
- 9.- **"Selection and mechanism reaction of transition metals on the Hydrodeoxygenation (HDO process): A DFT study"**
Fabian Morteo Flores
Cardiff University
- 10.- **"Optical fibre sensors for novel medical devices"**
Dr. Francisco U. Hernández Ledezma
University of Nottingham
- 11.- **"Understanding the role of drug transporters in the disposition of inhaled drugs in the lung"**
Paulyna Magana
University of Nottingham



Committees

MXSymposium21 would not have been possible without the commitment of these committees and their members.

Jorge A. Llamas Orozco (Chair)

PhD in Sustainable Energy Technology
Faculty of Engineering
University of Nottingham

Paulyna Magaña

PhD in Pharmacy
School of Pharmacy
University of Nottingham

Cristina Ferro-Barbosa

PhD Manufacturing Engineering
Faculty of Engineering
University of Nottingham

Dr. Alan Vega Pasos

Faculty of Engineering
University of Nottingham

Dr. Francisco U. Hernández Ledezma

Optics & Photonics Engineer
Faculty of Engineering Associate
The University of Nottingham

Carlos A. Gómez Moreno

PhD in Manufacturing Engineering
Faculty of Engineering,
University of Nottingham

Jessica A. Vidales Herrera

PhD in Chemical Engineering
Faculty of Engineering
University of Nottingham

Dr. Andrea Garduño Jiménez

Food Water Waste Research Group
Faculty of Engineering
University of Nottingham

Mariana Gaytan Camarillo

PhD in Environmental Psychology
School of Psychology
University of Nottingham

Gisela Reyes-Cruz

PhD in Computer Science
School of Computer Science
University of Nottingham

Dr. Carlos A. Osorio Sandoval

The Thomas Ashton Institute
University of Manchester

Jesús Molinar Díaz

PhD in Materials Engineering and Materials Design
Faculty of Engineering
University of Nottingham

Jose G. Berumen Salazar

PhD in Digital Economy
School of Computer Science
University of Nottingham

Yarely G. Aguilar Pérez

PhD in Sustainable Energy Technology
Faculty of Engineering
University of Nottingham

External supporters

Eduardo Estala Rojas (Principal Advisor)

Chief Executive Officer
Mexican Cultural Centre (MCC), UK

Christian Chávez López (Designer)

Lecturer, PhD student
Posgrado en Artes y Diseño, UNAM, México

Dr. Lidia Ángeles García González (Advisor)

CONACyT Postdoctoral Researcher
Universidad de Guanajuato, México

Dr. Michael James Basford (Academic Proofreader)

Faculty of Engineering
University of Nottingham





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symposium.mxuk.2020@gmail.com

