

# UNIVERSIDAD AUTÓNOMA DE CIUDAD JUÁREZ



HEAD OFFICE OF PARTNERSHIP AND EXCHANGE  
OFFICE FOR COOPERATION AND INTERNATIONALIZATION

SOMOSUACJ

# Research projects in English



# Physicist Mathematics and Earth Sciences

| Researcher name                  | Research project   | Contact  |
|----------------------------------|--|--|
| Dr. Felipe Adrian Vázquez Galvez | Monitoring micro-plastics and other contaminants in the urban environment and its impact in the radiative forcing  | <a href="mailto:fvazquez@uacj.mx">fvazquez@uacj.mx</a>               |
| Dr. Elifalet López González      | Development of 4d algebras and PDE solutions   | <a href="mailto:elgonzal@uacj.mx">elgonzal@uacj.mx</a>               |
| Dr. Rafael Torres Córdoba        | Mathematical modeling applied to control theory  | <a href="mailto:ratorres@uacj.mx">ratorres@uacj.mx</a>               |
| Dr. Roberto Ivan Cabrera Munguia | 1.Shadow and gravitational lensing in Kerr-Newman space-time<br>2.Analytical solutions, using the factorization method, for the Schrodinger equation under different potentials<br>3.Harmonic analysis of communated dc-dc, dc-ac, ac-dc, ac-ac networks | <a href="mailto:roberto.cabrera@uacj.mx">roberto.cabrera@uacj.mx</a> |



# Physicist Mathematics and Earth Sciences

| Researcher name               | Research project  | Contact  |
|-------------------------------|---|--|
| Eli Rafael Pérez Ruiz         | Ecohydrology of natural and urban ecosystems of arid and semi-arid zones of the North American <b>Monsoon</b> área. | <a href="mailto:eli.perez@uacj.mx">eli.perez@uacj.mx</a>     |
| Pierre Giovanni Mani González | XPS on versatile atomic layer deposition processes  | <a href="mailto:pierre.mani@uacj.mx">pierre.mani@uacj.mx</a> |
| Jorge Rodas-Osollo            | Cognitive Analysis  | <a href="mailto:jorge.rodas@uacj.mx">jorge.rodas@uacj.mx</a> |

# Biology and Chemistry

| Researcher name              | Research project  | Contact  |
|------------------------------|---|--|
| Dr. Mónica<br>Galicia García | Modified electrodes for the development of electrochemical sensors<br>in drugs detection and pesticides in sewage | <a href="mailto:monica.galicia@uacj.mx">monica.galicia@uacj.mx</a> |

# Medicine and Health Sciences

| Researcher name                | Research project   | Contact  |
|--------------------------------|--|--|
| Dr. Juan José Ramírez Espinosa | Optimization of the pharmaceutical characteristics of vegetable extracts | <a href="mailto:juan.espinosa@uacj.mx">juan.espinosa@uacj.mx</a> |

## Multidisciplinary projects

| Researcher name                | Research project   |  |
|--------------------------------|--|--|
| Dr. Lizette Vaneza Chávez Cano | Sustainable and equitable cities: A comparative study about the spatial experience in the case of roller derby in Orillia, Ciudad Juarez, Bogota, and Ibagué                 | <a href="mailto:lizette.chavez@uacj.mx">lizette.chavez@uacj.mx</a> |
| Francisco López Orozco         | Software development for Image Analysis<br>Eye tracking by using webcams<br>Developing a problem set for competitive programming by using omegaUp<br>Eyetracking experiments | francisco.orozco@uacj.mx   |

# Humanities and Behavioral Sciences

| Researcher name                   | Research project  | Contact  |
|-----------------------------------|---|--|
| Dr. Roberto Estrada Olguín        | Heidegger and modern philosophy   | <a href="mailto:roberto.estrada@uacj.mx">roberto.estrada@uacj.mx</a>     |
| Dr. Pavel Roel Gutiérrez Sandoval | 1. Technical-experimental unit in speech therapy, lexical semantics, and musical didactics<br>2. Film education<br>3. Applied musical education<br>4. Tent-laboratory of circus arts<br>5. Cuban psico-ballet | <a href="mailto:pavel.gutierrez@uacj.mx">pavel.gutierrez@uacj.mx</a>     |
| Dr. Jorge Alberto Ordoñez Burgos  | Greco-egyptian magic, medicine, and phylosophy  | <a href="mailto:jordonez@uacj.mx">jordonez@uacj.mx</a>                   |
| Dr. Fernando Sandoval Gutiérrez   | Education for quality life  | <a href="mailto:fernando.sandoval@uacj.mx">fernando.sandoval@uacj.mx</a> |
| Dr. Guadalupe Santiago Quijada    | Computer vision and augmented reality   | <a href="mailto:gsantiag@uacj.mx">gsantiag@uacj.mx</a>                   |
| Dr. Flor Urbina Barrera           | Migration and families in the Americas  | <a href="mailto:flor.urbina@uacj.mx">flor.urbina@uacj.mx</a>             |

# Humanities and Behavioral Sciences

| Researcher name                  | Research project             | Contact          |
|----------------------------------|------------------------------|------------------|
| Ma. Eugenia<br>Hernández Sánchez | Cultural Patrimony<br>Border | marherna@uacj.mx |



# Social Sciences and Economy

| Researcher name                     | Research project   | Contact  |
|-------------------------------------|--|--|
| Dr. Oscar Javier Montiel Méndez     | Entrepreneurship and family business   | <a href="mailto:oscar.montiel@uacj.mx">oscar.montiel@uacj.mx</a>   |
| Dr. Raúl Holguin Ávila              | Social-spatial segregation in inhabitants of housing of social interest in the Southeast of Ciudad Juarez  | <a href="mailto:raul.holguin@uacj.mx">raul.holguin@uacj.mx</a>     |
| Dr. Blanca Lidia Márquez Miramontes | 1. Intellectual capital in industrial MSMEs<br>2. Competitiveness in manufacturing organizations through industrial knowledge management models            | <a href="mailto:bmarquez@uacj.mx">bmarquez@uacj.mx</a>             |
| Jorge Luis Sosa                     | Evaluation of Social Policies for immigration, implemented by the local government of Ciudad Juárez for the Cuban immigrants.                              | <a href="mailto:jorge.luis@uacj.mx">jorge.luis@uacj.mx</a>         |
| Esther Guadalupe Carmona Vega       | Influence of financial performance of socio-emotional wealth, competitiveness and innovation, and entrepreneurial orientation of Latin American companies. | <a href="mailto:esther.carmona@uacj.mx">esther.carmona@uacj.mx</a> |
| Alfredo Limas Hernández             | Gender education and citizenship construction  | <a href="mailto:alimas@uacj.mx">alimas@uacj.mx</a>                 |

# Engineering Sciences

| Researcher name                       | Research project   | Contact  |
|---------------------------------------|--|--|
| Dr. Luis Asunción Pérez Domínguez     | Pythagorean fuzzy sets and multicriteria decision-making   | <a href="mailto:luis.dominguez@uacj.mx">luis.dominguez@uacj.mx</a>     |
| Dr. Santos Adriana Martel Estrada     | Synthesis and applications of physico-chemical properties of nanopolymers for Medical use  | <a href="mailto:adriana.martel@uacj.mx">adriana.martel@uacj.mx</a>     |
| Dr. Francisco López Orozco            | 1. Implicit relevance feedback of texts during information search through eye tracking<br>2. Artificial intelligence for enhancing social robots<br>3. Eye tracking applications and experimentation<br>4. AI and data science | <a href="mailto:francisco.orozco@uacj.mx">francisco.orozco@uacj.mx</a> |
| Dr. Noe Gaudencio Alba Baena          | Implementation of engineering tools and Lean-Sigma in MSMEs  | <a href="mailto:nalba@uacj.mx">nalba@uacj.mx</a>                       |
| Dr. Humberto de Jesús Ochoa Domínguez | Phantom simulations to train deep networks in image reconstruction applications for nuclear medicine   | <a href="mailto:hochoa@uacj.mx">hochoa@uacj.mx</a>                     |
| Dr. Juan Miguel Díaz Mendoza          | Development of polymeric compounds with sustainable materials  | <a href="mailto:juan.diaz@uacj.mx">juan.diaz@uacj.mx</a>               |
| Dr. Luis Carlos Méndez González       | Automatization of a system for control of supplies   | <a href="mailto:luis.mendez@uacj.mx">luis.mendez@uacj.mx</a>           |
| Dr. Abimael Jiménez Pérez             | Development of embedded systems in FPGAs for electronic interrogation applications in electro-optical sensors  | <a href="mailto:abimael.jimenez@uacj.mx">abimael.jimenez@uacj.mx</a>   |



# Engineering Sciences

| Researcher name              | Research project  | Contact                |
|------------------------------|---|------------------------|
| Diana Maria Carrillo Flores  | Development of nanostructures fibers of NiCo <sub>2</sub> O <sub>4</sub> , LiTeZn , LiCo <sub>2</sub> O <sub>4</sub> , ZnCo <sub>2</sub> O <sub>4</sub> , FeCo <sub>2</sub> O <sub>4</sub> for applications in energy storage synthesized by electrospinning. | diana.carrillo@uacj.mx |
| Humberto Ochoa Domínguez     | Front End for a microcalcification detection system in digital mammography  | hochoa@uaj.mx          |
| Luis Carlos Méndez González  | Design of industrial interfaces usign Python  | luis.mendez@uacj.mx    |
| Juan Luis Hernández Arellano | Design and evaluation of passive exoskeletons   | luis.hernandez@uacj.mx |
| Angel Israel Soto Marrufo    | Design and Control of robots using brushless motors   | angel.soto@uacj.mx     |



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