

## 1) Introduction

In Mexico it is important the Introduction to the Formation of Academic Corps for the dissemination of science in the country.

## 2) Justification

The Formation of Academic Corps is required for quality indicators in the country.

## 3) General Objective

Support the strengthening of Academic Corps, the integration of thematic networks of collaboration of Academic Corps, including support for publication expenses and Post-Doctoral Scholarships.

## 4) Course Description

General Direction of Higher Education University

The Directorate General of Higher Education University (DGESU), is an address that depends on the Sub secretary of Higher Education and participates in the development and management of public policies linked to higher education to guide and promote the comprehensive development of public universities State and solidarity support through the management and distribution of the federal subsidy, the design and operation of various programs related to the supply and allocation of extraordinary resources to the budget; institutional strengthening based on the strategic planning of the institutions, as well as the improvement of the quality of the academic programs, of the teaching staff and of the educational infrastructure of a higher level. Evaluates and grants recognition of official validity to the academic programs of private institutions of higher education (curricula, human resources and infrastructure in general), based on the General Law of Education, criteria of educational quality and social relevance, and other applicable provisions.

### PRODEP

The Program for Teacher Professional Development, for the superior type (PRODEP) seeks to professionalize Full Time Professors (FTP) so that they reach the capacities of research-teaching, technological development and innovation and, with social responsibility, articulate and consolidate in academic Corps and thereby generate a new academic community capable of transforming their environment. Its objective is to contribute to the full-time teachers (PTC) of public institutions of higher education reach the capacities to conduct research-teaching, professionalize, articulate and consolidate in academic Corps.

Institute coordination and linking mechanisms between university and technological systems regulating research and teaching activities.

Sustain the articulation and professional training of teachers, encouraging the processes of permanent improvement through the tasks of research and innovation; attending the formation of new cadres of teachers-researchers, with the skills, abilities and skills necessary to cover the different academic development and study programs offered by the institutions.

To sustain the estimate of the budget for the operation of the system of professionalization and academic improvement, to direct the development, systematization and operation that allow the Higher Education Institutions (HEI) according to the Policies of higher education and established guidelines, their programs and projects of Development of Academic Corps, Training and updating of academic staff.

## Topics

### Agricultural sciences

- Aquaculture
- Alternative Agriculture
- Protected Agriculture
- Sustainable agriculture
- Sustainable Agriculture of Arid Zones
- Agrobiotechnology
- Agrodiversity
- Agroecology
- Livestock Agroforestry
- Agroproduction
- Water-Soil
- Microbial and Phytochemical Alternatives for Pest Control
- Forest Biology
- Molecular Biology Farming and Bioconservation
- Agricultural Biotechnology
- Animal Biotechnology
- Food Science
- Science and Technological Innovation Livestock
- Agroindustrial Science and Technology
- Food Science and Technology
- Earth sciences
- Forestry Sciences
- Conservation and Forestry Development
- Biologic control
- Basic and Horticultural Crops
- Protected crops
- Dynamics of Forest Ecosystems
- Ecophysiology applied to Crops in Arid Zones
- Ecology, Evaluation and Responsible Management of Fisheries Resources
- ITES Forest Ecosystems
- Entomology
- Veterinary Epidemiology
- Studies of Ecosystems and Agroecosystems
- Wildlife
- Soil Fertility
- Phytoprotection
- Forages, Nutrition and Animal Health
- Sustainable Tropical Livestock
- Genetics and Animal Reproduction
- Horticulture
- Agrotechnology Engineering
- Engineering in Production Systems
- Forest engineering
- Animal Immunology and the Environment
- Interaction of Production Systems and Ecosystems
- Applied research in Veterinary Medicine and Zootechnics
- Research in Native Fauna
- Research in Animal Production
- Agroecological Management of Production Systems
- Management of Animal Reproduction
- Management of Natural Resources and Sustainability
- Soil Management, Water and Plant Physiology
- Integrated Management of Agroecosystems
- Sustainable Management of Horticultural Resources
- Management and use of Genetic Resources
- Medicine and Animal Surgery
- Genetic Improvement for Seed Production
- Animal Nutrition
- Optimization of Water-Soil Resources
- Agricultural Parasitology
- Pathobiology
- Pathology and Veterinary Public Health
- Fishing and Aquaculture
- Social Processes in the Rural Environment
- Agricultural production
- Animal production
- Production of Lesser Species
- Production of Protein of Animal Origin
- Sustainable Horticultural Production
- Comprehensive Livestock Production
- Sustainable Livestock Production
- Sustainable Production of Bovine Meat and Milk
- Sustainable Production of Seeds and Grains
- Plant Production
- Production, Quality and Safety of Milk and its Derivatives
- Production, Management and Conservation of Aquatic Resources
- Sustainable Animal Production
- Productivity of Tropical Agroecosystems
- Plant Protection
- Green Chemistry and Sustainable Development
- Tropical Phyto-genetic Resources
- Forest Resources
- Genetic Resources and Agricultural Productivity
- Water and Edaphic Resources
- Natural Resources and Sustainable Development
- Natural Resources and Agroforestry Systems
- Animal Reproduction
- Residues, Contaminants and Adulterants in Water and Food
- Animal health
- Agricultural Production Systems
- Systems of Agricultural, Livestock and Agroindustrial Production
- Animal Production Systems
- Fruit and Vegetable Production Systems
- Livestock and Zoonoses Production Systems
- Technologies Applied to Fisheries and Aquaculture Resources
- Advanced technologies in Horticulture
- Agricultural Production Technologies
- Technologies in Livestock Production
- Use and Conservation of Plant Genetic Resources
- Zoonoses and Emerging Diseases

### Holdings

Mexico	Colombia	Guatemala
Bolivia	Cameroon	
Spain	El Salvador	Democratic Republic
Ecuador	Taiwan	of Congo
Peru	Nicaragua	Paraguay

## Sciences of Engineering and Technology

- Acoustics and Mechanical Vibrations
- Administration and Information Technology
- Savings and use of Energy
- Alternatives and technological processes of environmental recovery
- Intelligent Environments and Soft Computing
- Process analysis
- Application of Systems for the management of large volumes of Geographical, Scientific and Linguistic location data
- Technological Applications in Electromechanics and Manufacturing
- Structures Area
- Urban Studies Area
- Computer Systems Area
- Electric Area
- Bioclimatic architecture
- Industrial Maintenance Consulting
- Fundamental and Biotechnology Aspects of Microorganisms and Plants
- Automatic and Applied Computing
- Process automation
- Bioarchitecture
- Bioengineering
- Bioprocesses
- Food Biochemistry
- Biotechnology
- Applied quality in the integration of advanced manufacturing industrial systems
- Characterization and processing of Mineral, Atmospheric and Biological Particles
- Center for Assessment and Urban Studies
- Cybernetics and Applied Computing (CICA)
- computer's science
- Mathematical Computing
- Conservation of the Built Heritage
- Sustainable Construction
- Control of Electric Power, Renewable Energies, Nanotronics and Applied Computing
- Control and Instrumentation
- Intelligent Control
- Development of Applications in Mobile Devices
- Development of chemical materials and processes
- Software development
- Industrial development
- Urban Development and Housing
- Deterioration of Materials in Civil and Industrial Infrastructure
- Dynamics and Robotics
- Industrial design
- Mechanical design
- Design and Mechatronics Technology
- Industrial Electromechanics
- electronics
- Energetics
- Sustainable Environments
- Structures
- Comprehensive Study of Applied Engineering
- Philosophy and Education in Architecture and Construction
- Physics-Mathematics applied to Engineering
- Geology
- Geotechnics
- Environmental management
- Landscape Architecture Group
- Habitability and Territorial Planning
- Hydraulics
- Hydrology
- Engineering
- Educational Innovation and Technology
- Food Safety and Nutrition
- Electronic Instrumentation
- Environmental Intelligence-Ubiquitous Computing
- Electricity and Electronics applied to Sustainable Technological Development
- Management of Green Technologies in the Education sector and its relationship with the Productive sector
- materials
- Mechanics
- Mechatronics
- Micro and Nanosystems
- Microelectronics
- Data Mining and Pattern Recognition
- Modeling of the Supply Chain and Transportation Systems
- New technologies applied to education
- Civil Works, Environment and Sustainable Infrastructure
- Optoelectronics
- Disaster Prevention and Sustainable Development
- Processes and Materials
- Applied Chemistry
- Virtual Reality and Robotics
- Security With IT
- Signals and Systems
- Simulation and Intensification of Chemical and Biological Processes
- Synthesis and Characterization of Materials
- Control Systems, Automation and Robotics
- Energy Systems
- Soils
- Energy Sustainability
- Information Technology and Applied Communications
- Telecommunications
- Telematics
- Telemetry and Wireless Communications
- Thermofluids
- ICTs and Electronic Devices
- Biotechnology transfer
- Tribology and Surface Analysis in advanced materials
- Tourism, Development and Sustainable Technologies
- Urban Planning and Environment
- Optimal Use of Energy and Environmental Assessment and Restoration
- Use and Conservation of Water Resources
- Sustainable Viability of the Building

## Health Sciences

- Physical Activity, Education and Health
- Administration and Development of Organizations in Health Systems
- Allergy and Clinical Immunology
- Food and Nutrition in the Health-Disease process
- Environment and Health
- Pathological anatomy
- Multidisciplinary Care of the Pediatric and Adolescent Patient
- Pharmaceutical Care and Services
- Biosciences in Clinical Nutrition
- Biocompatibility in Dentistry and Education
- Bioenergetics and Cellular Aging
- Biochemistry and Molecular Medicine
- Biotechnology
- Basic Sciences in Chronic-Degenerative Processes
- Basic Sciences and Diagnosis
- Biomedical Sciences applied to Forensic Medicine
- Biomedical and Health Sciences
- Clinical Sciences of Pediatric Dentistry and Orthodontics
- Behavioral Sciences
- Nephrology
- Pharmaceutical Sciences and Biomedicine
- Morphological Sciences
- Chemical-Biological Sciences
- General Surgery
- Clinical
- Nursing Social Care
- Malnutrition and Flow Cytometry
- Determinants of Chronic and Infectious Diseases
- Disparities in Health, Environment and Addictions
- Drugs and Addictions A Multidisciplinary Approach
- Education, Nursing and Health
- Education, Health and Oral Epidemiology
- Endodontics
- Chronic degenerative diseases
- Genetic, Neurological and Metabolic Diseases
- Aging, Immuno-Metabolism and Oxidative Stress
- Epidemiology and Infections
- Healthy life style
- Stomatology
- Study of Communicable Diseases
- Study of genetic-metabolic cell damage markers in Metabolism Diseases
- Immunogenetic, Immunopathological and Microbiological Study of Diseases
- Multidisciplinary Study of Chronic Degenerative Diseases
- Nervous System Studies
- Pharmaceutical Studies oriented to the Development of Medicines
- Basic and Clinical Multidisciplinary Studies in Health
- Studies on Psychoanalytic Theory and Clinic
- Transdisciplinary Studies on Deaf Communities
- Evaluation of Therapeutic Agents
- Diagnostic evaluation
- Pharmacy
- Pharmacobiology
- Surgical Medicine
- Physiology
- Pathophysiology
- Gastroenterology and Infectious Diseases
- Genetics, Environment and Health
- Functional and Structural Genomics in Biomedical Research
- Gynecology and Obstetrics
- Study Group on Rheumatic Diseases
- Vulnerable Groups and Quality of Life
- Hematology
- Hepatology
- Hypertension and Cardiovascular Risk
- Functional Immunogenetics
- Immunology and Applied Molecular Biology
- Immunology and Medical Dermatology
- Immunology and Rheumatology
- Immunopathology
- Clinical research
- Research and Technological Development in Psychology
- Clinical and Epidemiological Health Research
- Dental Investigations
- Legal Medicine
- Metabolism and Reproduction
- Microbiology
- Medical Microbiology
- Morphology
- Applied nanobiomaterials
- Neurobiology
- Public health
- Neurosciences
- Neuroendocrinology
- Neurophysiology
- Neuropsychobiology
- Neuropsychology
- Human Nutrition
- Ophthalmology
- Orthopedics and Traumatology
- Pediatrics
- Peoples Health and Illness Processes
- Psychoanalysis and Social Discourses
- Psychophysiology
- Radiology
- Parasite-Host Relationship and Human Pathology
- Human Responses to Health and Illness
- Urology Service
- Metabolic Syndrome and Cardiovascular Disease
- Sociomedicine
- Basic and Environmental Toxicology

## Holdings

Mexico	Colombia	Guatemala
Bolivia	Cameroon	
Spain	El Salvador	Democratic Republic
Ecuador	Taiwan	of Congo
Peru	Nicaragua	Paraguay

## Natural and Exact Sciences

- Water
- Algebra
- Environment and Genetics
- Coastal Environments and Sustainability
- Regional Geographic Analysis of
- Mathematical Analysis and Its Applications Analysis and Prospective Design
- Application of Physics
- Optical and Electronic Applications
- Astrophysics
- Biomolecular bases ES Chronic-degenerative diseases
- Biofuels
- Bioethics and Conservation of Natural Resources
- Biophysics and Soft Condensed Matter
- Biophysics and Statistical Mechanics
- Biofiteochemistry
- Cell Biology
- Cellular and molecular biology
- Conservation biology
- Genomic Biology
- Molecular biology
- Biomaterials
- Applied Biochemistry
- Botany
- Climate change
- Materials Science and Engineering
- Environmental Sciences
- Applied Biological Sciences
- Health Sciences
- Earth sciences
- Materials science
- Clinical Laboratory Sciences
- Nuclear Sciences
- Chemical Sciences
- Combinatory, Algorithms and Optimization
- Scientific Computing And Its Applications
- Pollution in Natural Resources
- Development and Didactics of Educational Mathematics
- Diagnosis and Management of Tropical Wetlands
- Ecology
- Marine ecology
- Tropical Ecology
- Terrestrial ecosystems
- Equations of Mathematical Physics
- Differential Equations and Analysis
- Edaphology and Environment
- Environmental Electrochemistry
- Teaching Mathematics
- Statistics
- Immunological Study of HIV Infection and Human Immunodeficiencies
- Urban and Territorial Studies
- Ethnoecology, Systematics and Conservation of Biodiversity
- Evaluation and Monitoring of Environmental Factors
- Clinical Pharmacy
- Pharmacy and Biomedicine
- Pharmacology and Toxicology
- Applied Physic
- Computational Physics
- Experimental Physics
- Mathematical Physics
- Physical chemistry
- Phytopathology and Genotoxicology
- Medical Genetics and Genomic Medicine
- Physical geography
- Applied Geology
- Geometry and Dynamic Systems
- Geosystems
- Biochemical research
- Research in Infectious and Inflammatory Diseases
- Management of Marine and Coastal Environments
- Educational Mathematics
- Applied Microbiology
- Modeling and Applied Mathematics
- Morphophysiology and Animal Ecology
- Neurosciences
- Oceanography and Physical Meteorology
- Applied Optics and Characterization of Materials
- Probability and Statistics
- Demographic, Spatial and Migratory Processes
- Environmental chemistry
- Biomolecular Chemistry
- Organic and Inorganic Chemistry
- Theoretical and Applied Chemistry
- Radiobiology
- Forest Genetic Resources
- Natural resources
- Synthesis and Characterization of Organic Compounds and Materials
- Seismology and Seismic and Structural Engineering
- Applied Geographic Information Systems
- Dynamic Systems and Control
- Environmental Sustainability
- Taxonomy
- Environmental technology
- Green Technologies
- Gene Therapy and Molecular Biology
- Topology And Its Applications
- Toxicogenetics and oral immunology
- Technology Transfer for Sustainable Development
- Water Treatment and Pollution Control of the
- Wildlife and Molecular Biology

## Holdings

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## Social and Administrative Sciences

- Physical Activity and Sports
- Administration
- Business Administration
- Administration and Accounting
- Administration and Business Development
- Environment and Regional Development
- Latin America State, Power Relations and Social Movements
- Economic analysis
- Analysis in Public Sphere, Government, Democracy and Civil Society
- Political Analysis
- Anthropology
- Social anthropology
- Applications of Information Technology
- Software Applications in Education
- Landscape Archeology and Worldview
- Advanced Aspects of Human Rights
- Well-being, Knowledge, Health and Inequality
- Quality of Life, Gender and Aging
- Quality and Organizational Management
- Technological Change and International Economy
- Global capital, Development and Sustainability
- Human and Financial Capital of Organizations
- Center of Studies for Sustainable Development
- Animal Science and Agribusiness
- Criminal Science, Rule of Law and Human Rights
- Political Science and Public Administration
- Sciences of Physical Culture and Sport
- Behavioral and Health Sciences
- Criminal Sciences
- Political Sciences
- Social Sciences, Culture and Complexity in Globalization
- City and Environment
- Citizenship, Culture and Political Institutions
- Organizational Educational, Labor Climate
- Commercialization
- Commerce and International Relations
- Business competitiveness
- Digital communication
- Educational Communication and Dissemination of Science
- Organizational Strategic Communication
- Political Communication and Citizenship in the Democratic Transition
- Communication, Innovation and Knowledge Management
- Behavior, cognition and Development
- Accountancy
- Accounting, Finance and Fiscal
- Criminology
- Culture and Identity
- Corporate Culture and Social Sustainable Development
- Urban culture
- Culture and Business Development
- Culture and Management of Resources for Development
- Culture, Identities and Gender
- Culture, Politics and Power in Latin America
- Democracy and Political Communication
- Democracy and Governance
- Civil and Social Law
- Comparative Law
- Constitutional right
- Constitutional Law, Institutions and World Politics
- Criminal Law and Practice Perspective
- Social Right
- Law, Citizen Participation, Anticorruption, Education and Human Community and Institutional Development
- Human Rights and the Rule of Law
- Business development
- Business development
- Economy
- Financial Economics and Business
- International economy
- Virtual education
- State Government and Public Policies
- Archaeological Studies
- Demographic Studies
- Social Studies in Education, Science and Innovation in Latin America
- Tax Studies and Auditing
- Urban Studies
- Finance, Economy and Society
- Geography, Management and Sustainable Management of the Territory
- Technological Innovation and Competitiveness
- Innovations in Teaching, Research and Extension in Educational Institutions
- Constitutional Justice and Human Rights
- Criminal Justice and Public Safety
- Marketing
- Micro, Small and Medium Business
- Economic and Financial Models
- International Business
- Citizen Participation and Democracy
- Economic policy
- Social, Economic and Political Processes in Regional Development
- Psychology and Education
- Psychology, Psychoanalysis and Intervention Models
- Health and Society
- Sexualities, Gender and Citizenship
- Complex Systems, Sustainability and Innovation
- Policy and Sociology of Development
- Theory and International Law
- TICS
- Legal Transformations
- Taxation, Environmental Sustainability and Socially Responsible Company
- Tourism, Development and Sustainability
- Vulnerability, Education and Sustainability

## Education Humanities and Art

- Action for the Reflection and Transformation of Education
- Administration and Educational Policy
- Agents and Processes of Education
- Field Achievements Didactic Proficiency of the Graduate Profile
- Academic Literacy
- Educational Alternatives for Social Inclusion
- Alternatives in Art
- Alternatives in Teacher Training
- Analysis of Cinema, Movements, Genres and Styles
- Analysis of Language and Problems of Education
- Analysis and Interpretation of Literary Texts
- Statistical Analysis of Educational Indices
- Anthropology and Contemporary History of Latin America and the Caribbean
- Learning and Teaching of Mathematics in Teacher Training and Basic Education
- Learning and Teaching Design
- Archeology and History of Complex Societies
- Visual arts
- Quality and Innovation of Higher Education
- Cognitive Science
- Sciences and Arts for Design
- Conservation of Documentary Collections
- Comprehensive Conservation of Metallic Cultural Heritage
- Curriculum and Instruction
- Contemporary dance
- Challenges of Youth Education, Gender and Curriculum
- Development of the Arts in Chiapas
- Development of New Alternatives for Artistic Teaching
- Development and Musical Research
- Professional Development and Assessment in Language Teaching
- Interdisciplinary dialogues in Hispano-American Literature
- Didactics of Mathematics
- Specialized Didactics and Educational Policies
- Specific Teaching and Teacher Training
- Speech, Politics and Culture
- Contemporary scenic speeches
- Design, Society, ICT
- Teaching, Educational Practices and Their Social Impact
- Long distance education
- Education supported in the Information, Communication and Collaboration Technologies
- Education in Science
- Education in Culture, History and Art
- Education Equity and Digital Skills
- Special Education and Social Inclusion
- Education for Design
- Education for Music
- Education and Teaching of Geography
- Education and Guidance
- Education and Power, Actions with Groups in Poverty and Contexts of Vulnerability
- Education and Educational Policies
- Education, Psychology and Society
- Teaching of Sciences and the Arts in Virtual Environments
- Teaching and Dissemination of History
- Innovative Learning Environments
- Epistemology and axiology
- Polychrome sculpture and Mexican Retablos
- Space, Time and Society
- Spanish. Disciplinary, interdisciplinary studies and Applications
- Study and Production Studies on Museums and Heritage
- Studies of Hermeneutics and Humanities
- Studies of Poetics and Hispanic American Literary Criticism
- Educational Systems Studies Open and Distance
- Studies in Digital Culture, its Implications in Education and Dissemination of Science
- Historical and Anthropological Studies
- Multidisciplinary Studies in Art, Composition, Music Theory and Interpretation
- Studies and diffusion of Mexican and international music in the genre of Youth Orchestras
- Phenomenology, hermeneutics and ontology
- Training for Research and Terminal Efficiency in Postgraduate Studies in Education
- Training and Teaching Practice in Special Education
- Globalization of Higher Education and Public Policies
- Guitar Art and Discipline in the 21st Century
- Cultural History and Historiography
- History of Philosophy
- World history
- Educational Innovation Normalist
- Interdisciplinary of the Arts
- Interdisciplinary and MultiDES of Education and Society
- Research, Conservation and Restoration of Easel Painting in Mexico
- Educational Inclusion, School for All
- Applied Linguistics in Foreign Languages
- Literature and Culture
- Hispanic American Literary Poetry
- Poetics and Aesthetics in Literature and Philosophy
- Politics, Government and Educational Practice
- Academic and Institutional Practices in Basic Education
- Problems of Language Theories, Historiography and Exegesis of Literary Discourse
- Educational Psychology and Quality of Life in the Student
- Reality, Science, Technology and Society
- Representations, Poetics and Musical Perspectives
- Semiotics and Significance Studies
- Theater and Culture
- Educational Television
- Emerging Topics in Basic Education
- General Theories of Art and Project Development
- Theories and criticisms of Art and Literature
- Translation and Linguistics Applied to the Teaching of Languages
- Transdisciplinarity, Sustainability and Dialogue of Knowledge
- Theoretical Transformations and Practices of Teacher Training in Language and Literature
- Tutoring in the Formative Impact of Teachers
- University, Government and Society
- Design Avant-gardes

## 5) Results

Management of Academic Body Formation.

## 6) Information Sources

- García, M. M., Briones, M. D. C. V., & Ramírez, D. H. (2018). CUERPOS ACADÉMICO DE RECURSOS NATURALES DE LA CARRERA DE INGENIERÍA QUÍMICA DE LA UNIVERSIDAD TECNOLÓGICA DEL SURESTE DE VERACRUZ. *Pistas Educativas*, 38(117).
- Liñán, J. L. G., Gaona, C. A. N., García, A. M., Bureos, B. G., & Díaz, S. H. (2018). CUERPO ACADÉMICO GESTIÓN DE LA EDUCACIÓN E INVESTIGACIÓN SUSTENTABLE. *Pistas Educativas*, 38(117).
- López, F. J. M., Hernández, C. A. F., Rojo, L. E., Torres, L. G. G., Alejos, J. O., & Chávez, E. V. (2018). RESEÑA DEL CUERPO ACADÉMICO INNOVACIÓN TECNOLÓGICA. *Pistas Educativas*, 38(117).
- Palacios, J. M. O. (2018). Desarrollo de la investigación. *Inventio, la génesis de la cultura universitaria en Morelos*, (19), 1.
- Villalba, J. A. M., & Muñoz, S. S. (2018). Generación de Competencias con Base en la Gestión de Conocimiento Científico. *REICE. Journal Iberoamericana sobre Calidad, Eficacia y Cambio en Educación*, 16(2).

## 7) Material that will be used during the course

Instructor

- Laptop
- Projector
- Board

Assistance Group

- Computer Lab with Internet Access

## 8) Instructor

BA in Economics from the Universidad Latina, IT Specialist from College Coronet Hall, Specialist in Finance from the University of London, Master in Finance from the University of London, PhD in Economics from the Instituto Politécnico Nacional with a research stay at the University of Santiago de Compostela.

Scientific production in Canada, Colombia, Brazil, Spain, Bolivia, England and the United States, member of research groups at the Complutense University of Madrid, National University of Australia, the National University of Colombia, the University of San Francisco Xavier, the Instituto Politécnico Nacional and the University of the Santa Elena Peninsula for the areas of fractal modeling in the sectors of economic activity.

Production of intellectual property of more than 200 titles in economics and applied mathematics, book chapters, production of software and books, national and international conferences.

Editor of indexed and refereed journals in Mexico, Spain, Ecuador, Bolivia, Republic of the Congo, Peru, El Salvador, Colombia, Cameroon, Nicaragua, Paraguay, Guatemala, Taiwan and Western Sahara.





CEO of ECORFAN-MEXICO, S.C. and their respective Clusters, RINOE in applied research of Economic Science according to the International JEL in Iran - Pakistan - Taiwan - Chile and Western Sahara regarding PIREQA for the ludic teaching of Languages according to the United Nations in Germany - Czech Republic - China - France - Japan-England -Russia-Italy and Portugal finally MARVID for Scientific Arbitration with registration RENIECYT of CONACYT.

## Holdings

Mexico	Colombia	Guatemala
Bolivia	Cameroon	
Spain	El Salvador	Democratic Republic
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