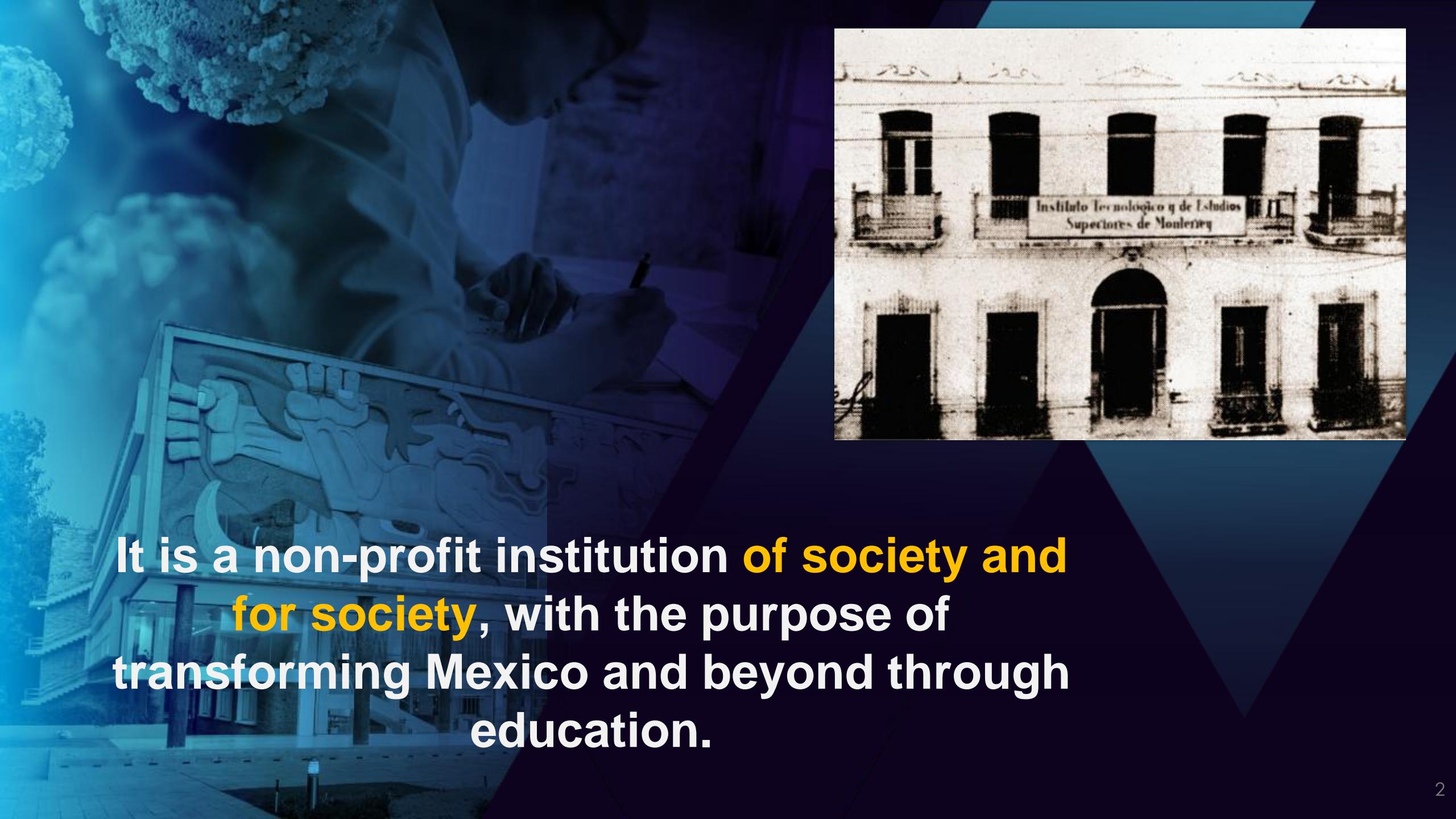




TECNOLÓGICO
DE MONTERREY



It is a non-profit institution **of society and for society**, with the purpose of transforming Mexico and beyond through education.

Only private University
nationwide



20
states
(32 cities)

~90,000
students

54,762 Undergraduate

6,992 Graduate

27,832 Highschool



6 Schools

- **Architecture, Art and Design**
- **Social Sciences and Government**
- **Humanities and Education**
- **Engineering and Sciences**
- **Medicine and Health Sciences**
- **Business**



+460,000 Alumni



+11,000 Professors
721 Researchers



+158,000
Participants in lifelong learning
courses



Tecnológico de Monterrey
Escuela de Ingeniería y Ciencias



School of Engineering and Sciences



Our numbers

Students

Undergraduate Graduate

21,101

41% of the total of
students at Tec

3,237

47% of the total of
students at Tec



30.9%

Women Undergraduate
Students

31.6%

Women Graduate
Students

Professors

Full Time

901

43% of the total of
professors at Tec

Part Time

1,891

28% of the total of
professors at Tec

Programs

Undergraduate

18

Masters

12

PM 7 MS 5

PhD's

4



Complete
degrees on 20
campus



Presence in 22 campus

Only core subjects

Undergrad complete programs

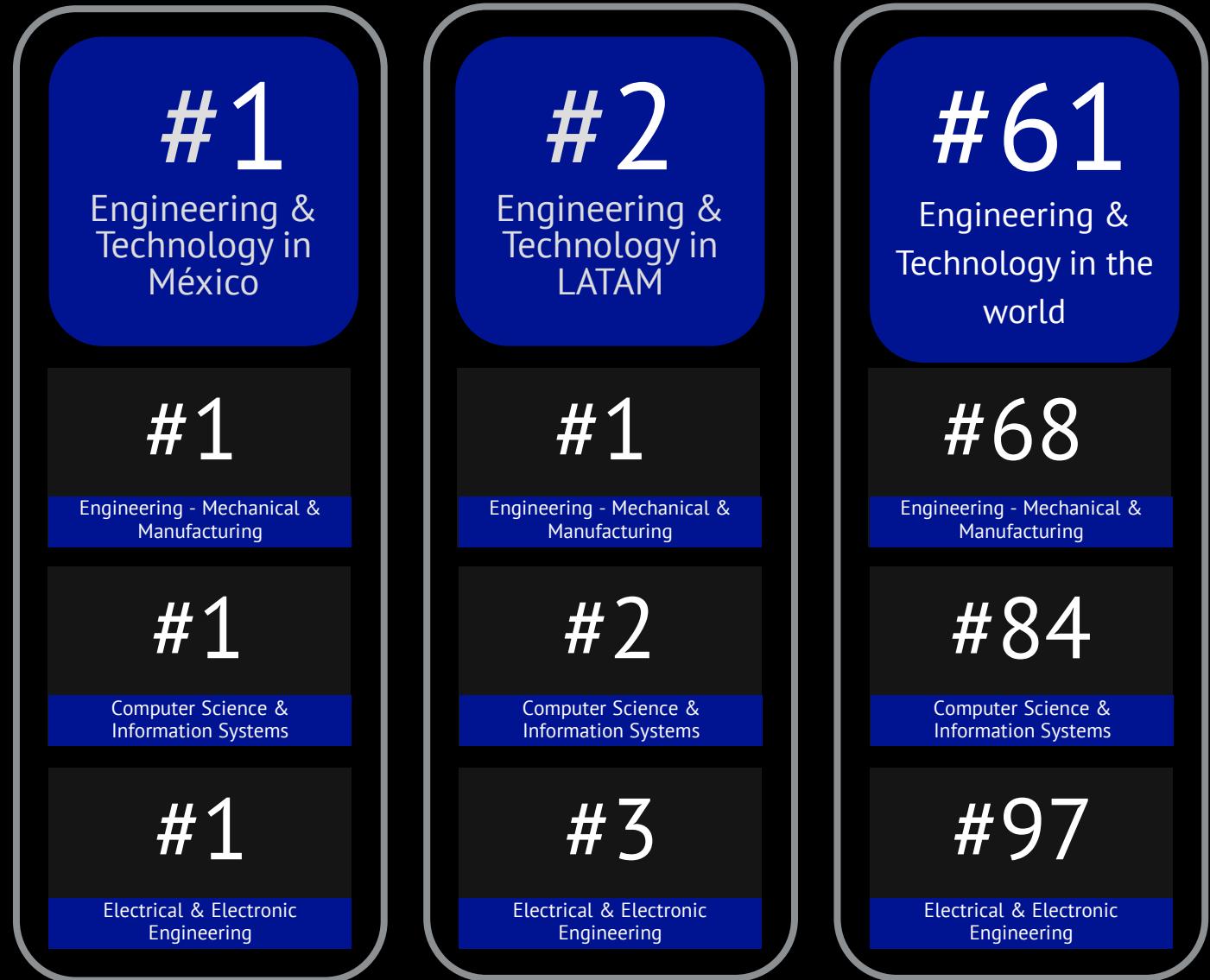




Our latest rankings from the 2024



THE
TIMES HIGHER EDUCATION
67
University Impact
Rankings 2024



Undergraduate Programs

Bioengineering and Chemical Process



- Biotechnology Engineering
- Food Engineering
- Agricultural Biosystems Engineering
- Chemical Engineering
- Sustainable Development Engineering

Computer Science and Information Technologies



- Robotics and Digital Systems
- Computer Science and Technology
- Business Digital Transformation

Applied Science



- Data Science and Mathematics Engineering
- Engineering Physics
- Nanotechnology Engineering

Innovation and Transformation



- Civil Engineering
- Electronics Engineering
- Innovation and Development Engineering
- Industrial Engineering
- Mechanical Engineering
- Biomedical Engineering
- Mechatronics Engineering

Double Degrees for undergraduate programs

AUSTRALIA

- Macquarie University
- University of Queensland

FRANCE

- ESC Rennes School of Business
- ECE Paris Ecole D'Ingenieurs

GERMANY

- DHIK – German Consortium for Int. Cooperations
- Pforzheim University of Applied Sciences
- RWTH Aachen University
- Ulm University

SPAIN

- Universidad de Oviedo
- EADA Business School Barcelona

THE NETHERLANDS

- University of Twente

UNITED KINGDOM

- University of Hull
- University of Essex

Schemes

Study Abroad

Study Abroad

Study Abroad

Study Abroad

Reciprocal

Reciprocal

Study Abroad

Exchange

Exchange

Study Abroad

Exchange

Study Abroad

Study Abroad

Type

Bachelor + Master

Advanced Master Placement

Bachelor + Master

Bachelor + Master

Bachelor + Bachelor

Bachelor + Bachelor

Advanced Master Placement

Advanced Master Placement

Bachelor + Bachelor

Bachelor + Master

Advanced Master Placement

Bachelor + Bachelor

Bachelor + Master

**200 students
participating in
double degrees in
a 2-year period**

Graduate Programs

M.Sc. And Ph.D.

- Biotechnology
- Nanotechnology
- Engineering Sciences
- Computer Sciences

Professional Masters (Non-thesis option)

- Engineering Management
- Cibersecurity
- Applied Artificial Intelligence
- Innovation for Enterprise Development
- Energy Management and Renewable Sources
- Quality Systems and Productivity
- Information Technology Management

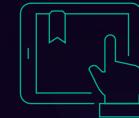
Postgraduate Program	Total Students	Collaboration
Ph. D. in Biotechnology	197	RWTH, Aachen University / Universidad Nacional de Quilmes / Twente University / Rice University / UC de Chile
PH. D. in Computer Sciences	65	UC de Chile / University of Texas at San Antonio / University of Twente / Rice University
Ph. D. in Engineering Sciences	159	RWTH, Aachen University / Twente University / Rice University /
Ph. D. in Nanotechnology	56	RWTH, Aachen University / Twente University / Rice University / University of Ottawa
Master of Science in Biotechnology	61	UNIANDES / UC de Chile / Universidad de Oviedo / DTU
Master of Science in Computer Science	76	Universidad Politécnica de Madrid / University of Texas
Master of Science in Engineering	81	DTU / Universidad Politécnica de Madrid / Hochschule Offenburg
Master in Nanotechnology	41	Twente University / Rice University
Master of Science in Manufacturing Systems	59	RWTH, Aachen University

Postgraduate Program	Total Students	Collaboration
Master in Cibersecurity (MCY)	94	UTSA (double degree) / INCIBE
Master in Engineering Management (MEM)	174	Rice University (double degree) / UPM / UC de Chile / Northwestern
Master in Applied Artificial Intelligence (MNA)	957	Tsinghua / UC de Chile
Master in Information Technology Management (MTI)	180	Stanford
Master in Innovation for Enterprise Development (MID)	258	UC de Chile / Stanford
Master in Energy Management and Renewable Sources (MER)	182	Stanford
Master in Engineering with specialization in Quality Systems and Productivity (MIP)	448	Georgia Tech / UC de Chile / ASU

ACADEMIC OFFER

5 international campuses:

- Guadalajara
- Querétaro
- Mexico City
- Monterrey
- Santa Fe (Mexico City)



Academic offer taught in English:

2 full bachelor programs:
• Industrial Engineering
• Mechatronics Engineering.

969 Formation units (courses) – Tec21 Model.

17% of all formation units (courses).

Faculty

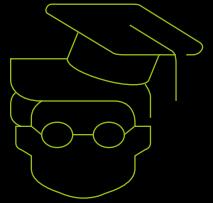
- **900** full-time professors
- **12%** international professors
- **79%** have a PhD



International students

- **5%** undergraduate students
- **13%** graduate students

Impact of our alumni in 80 years



Created **3.2 million** **jobs worldwide** which represents almost 4 years of new jobs created by the Mexican economy

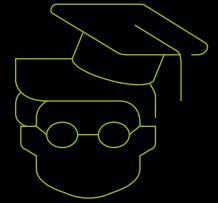
Started **220,000** **business**
(41% of EXATEC has created a company)

Generated **revenue** for **\$260 billion USD** equivalent to **19%** of Mexico's economy of a year

Contributed with **1.3 millions of** hours of **volunteering** a month

Started **32,000** **non-profit organisations**

Impact of our alumni in 80 years



Around **32%** are business owners or in **CEO** positions

1 in **4**

have an impact on **education**

97% consider that TEC has had a **positive impact** in their lives.

49% makes donations to different **social organizations**



INTELLIGENCEUNIT

Research collaborations with more than 70 countries

NORTH AMERICA

- ★ Arizona State University
- Carnegie Mellon University
- ★ Georgia Tech
- Harvard University
- ★ MIT
- Ottawa University
- Purdue University
- Rice University
- ★ Stanford University
- ★ Texas A & M
- University of Alberta
- University of Illinois

CENTRAL AMERICA

- IPN
- UANL
- UNAM

SOUTH AMERICA

- ★ Pontifícia Católica
- ★ Universidad de Chile
- ★ Universidad de los Andes
- ★ Universidad de São Paulo

EUROPE

- Chalmers University of Technology
- DHIK Consorcio
- ★ ETH Zürich
- Instituto Superior Técnico de Lisboa
- Oxford University
- Politécnico di Milano
- Politécnico di Torino
- RWTH Aachen
- ★ Technical University of Denmark
- ★ Technische Universität München
- University of Manchester
- Universidad de Girona
- Universidad de Oviedo
- Universidad Politécnica de Madrid
- University College London
- ★ University of Cambridge

AFRICA

- University of Witwatersrand

ASIA

- Indian Institute of Technology
- Nanyang Technological University
- NTU
- Tsinghua University

OCEANÍA

- University of Technology Sidney
- Macquarie University

+others



Aspirational



INTERNATIONAL NETWORKS AND CONSORTIA



SACS COC Southern Association of Colleges and Schools Commission on Colleges to award undergrad and graduate degrees.



Latin American Universities Consortium

LA TRÍADA

Alliance for higher education and research in Latin America (PUCP, UNIANDES y Tec de Monterrey)



The European Consortium of Innovative Universities



27 universities



Magalhaes network

Mobility and Research with T.I.M.E. universities



Tecnológico
de Monterrey

Australia

Mobility Out / Inbound 2020 – 2024

University of Queensland

31 / 3

27

Argentina

Instituto Tecnológico de Buenos Aires

4 / 0

1

Austria

Technische Universität Wien

1 / 0

1

Belgium

Vrije Universiteit Brussel

11

Université de Mons

Université de Liège

6

Université Libre de Bruxelles

33 / 4

34

Université Catholique de Louvain

6 / 8

18

Brazil

Universidade Estadual de Campinas

15

Universidade de São Paulo

1 / 0

Mobility and Research with T.I.M.E. universities



Tecnológico
de Monterrey

Canada

Mobility Out / Inbound 2020 – 2024

Polytechnique Montréal

9 / 2

5

China

Xi'an Jiaotong University

0 / 1

Beihang University

2 / 5

Denmark

Danmarks Tekniske Universitet

194 / 91

24

Finland

Lappeenranta-Lahti University of Technology

4

France

Centrale Supélec

4

ENSTA Paris

École Centrale de Lyon

2

École Centrale de Lille

École Centrale Marseille

5

École des Ponts ParisTech

Mobility and Research with T.I.M.E. universities



Tecnológico
de Monterrey

Germany

Mobility Out / Inbound 2020 – 2024

Leibniz Universität Hannover	2 / 3
Technische Universität München	133 / 32
Technische Universität Dresden	
Technische Universität Berlin	
RWTH Aachen University	28 / 23

Co-authored publications 2021 – 2024

9
22
4
5
47

Greece

Aristotle University of Thessaloniki	13
--------------------------------------	----

Hungary

Budapest University of Technology and Economics	6
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Italy

Università degli Studi di Trento	18 / 1	3
Università degli studi di Padova		68
Politecnico di Torino	29 / 25	33
Politecnico di Milano	22 / 4	39
Università degli Studi Federico II		41

Mobility and Research with T.I.M.E. universities



Tecnológico
de Monterrey

	Mobility Out / Inbound 2020 – 2024	Co-authored publications 2021 – 2024
Japan		
Yokohama National University		3
Keio University	17 / 4	6
Norway		
Norges Teknisk-Naturvitenskapelige Universitet	6 / 3	19
Latvia		
Riga Technical University	5 / 0	
Poland		
Wroclaw University of Science and Technology		6
AGH University of Science and Technology	4 / 0	7
Portugal		
Instituto Superior Técnico		
Romania		
University Politehnica of Bucharest		1

Mobility and Research with T.I.M.E. universities



Tecnológico
de Monterrey

Spain	Mobility Out / Inbound 2020 – 2024	Co-authored publications 2021 – 2024
Universitat Politècnica de Catalunya	36 / 10	31
Universitat Politècnica de València	28 / 6	31
Universidad Pontificia Comillas	99 / 20	2
Universidad Politécnica de Madrid	331 / 19	29
Sweden		
KTH Royal Institute of Technology	37 / 12	27
Lunds Tekniska Högskola		



TEC21

EDUCATIONAL MODEL



TEC21 > FOUR PILLARS



**Challenge
based learning**



Flexibility



**Inspiring
faculty**



**Memorable college
experience**

7 **Transversal
competencies**
+ disciplinary competencies



Self-awareness
Entrepreneurship
Social intelligence

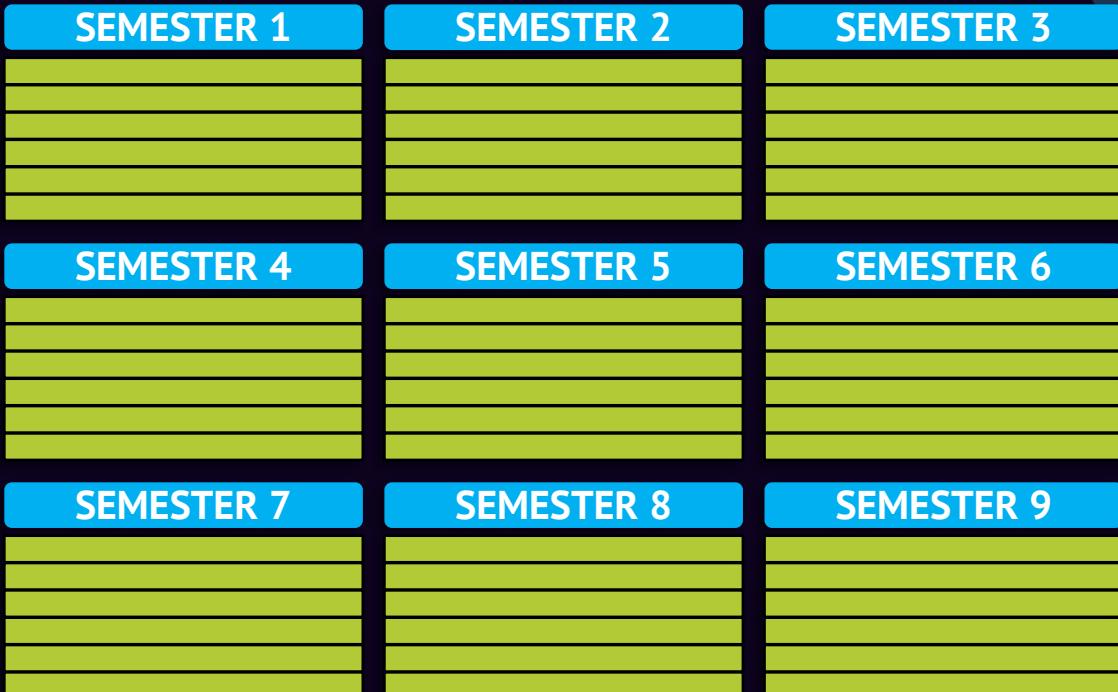


Ethical and citizen commitment
Reasoning for complexity
Communication
Digital transformation



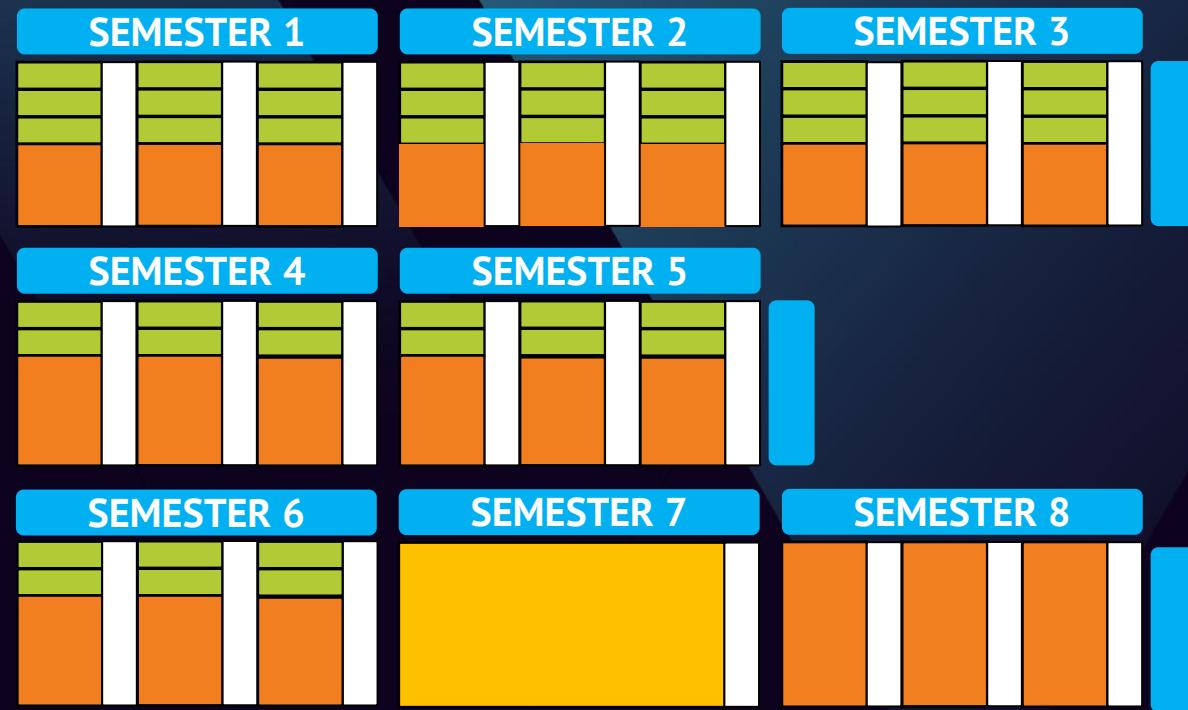
Flexibility

Before



Curriculum

Tec21



Courses



Block



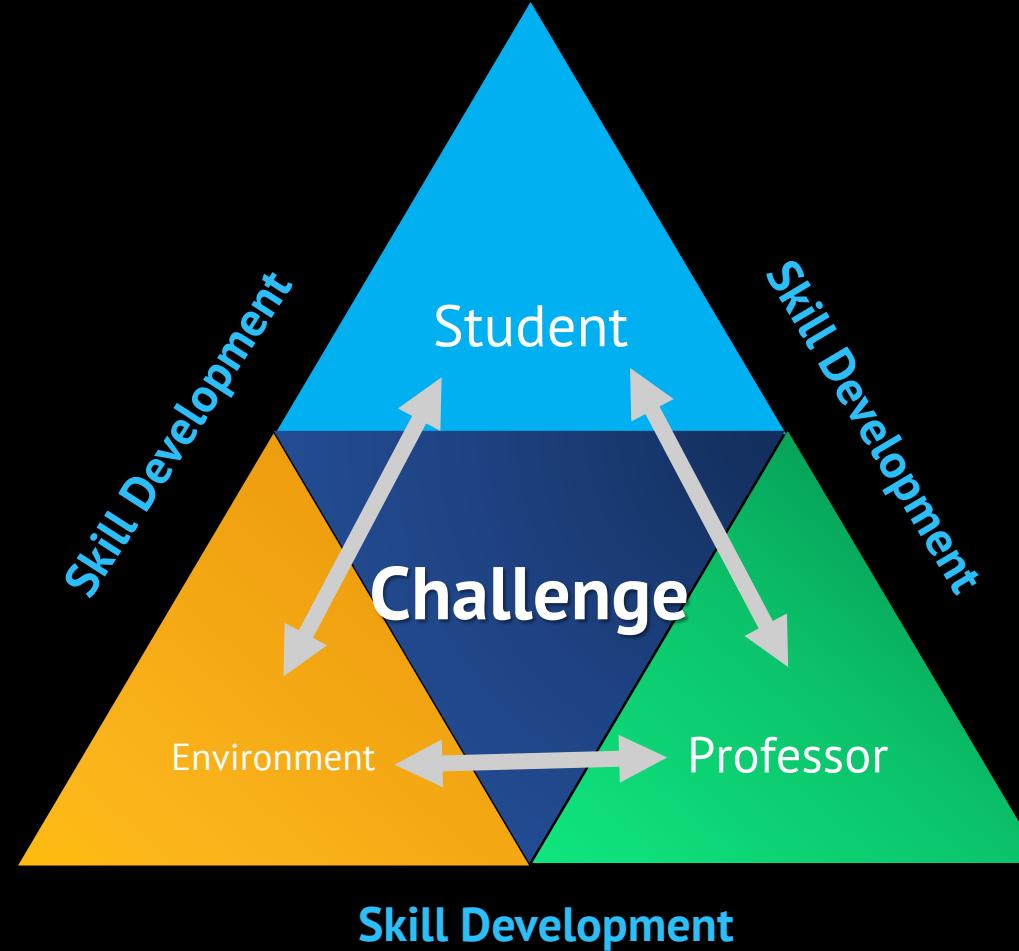
Tec Semester



Tec Week



Assessment



A **challenge** is an **experience designed** jointly by the academy and the industry-partner* to **expose** students to a real, **attractive** and **challenging situation**

Environment are **real situations** that can be developed inside and outside the classroom and in a national or international environment



Challenge based learning

+1,200
education partners

Companies, organizations & institutions
National, regional and local





Challenge-based learning

+1,600
Industry-partner

BBVA ORACLE

Liverpool JOHN DEERE Alibaba.com™

BMW CÁMARA
MEXICANA - CHILENA
DE COMERCIO E INVERSIÓN

CRUZ ROJA
MEXICANA

cdbaby™

flex

mastercard.
cisco™

FEMSA

citibanamex

POSADAS.

Ford

P&G

BAJA
CALIFORNIA
INTERNATIONAL
FILM
FESTIVAL

petco

IBM

MCR²
Manchester
Robotics

Coppel.

Actinver

CAFFENIO

Coca-Cola

petco

accenture

mabe
simplifica tu vida

MEGACABLE

BA
AYER

GRUPO
BIMBO

Teletón
Fundación

THE
HOME
DEPOT

Marisa
POR TI, UNA DELICIA
EST. 1992

SCHNELLECKE
LOGISTICS SE

NISSAN

EATON

Oster

CEMEX

Unilever

CORNING

Kellogg's®

VW

GISMA
BUSINESS
SCHOOL

Henkel

Vifac[®]
Celebramos la Vida.

CLŌE

DIF
Zapopan

La Huerta.
Cosecha una vida saludable.

Mondelēz
International

estafeta®

Pfizer

Heineken®

Ternium

Hamilton Beach
BRANDS

Sigma
alimentos

fundación azteca
de Grupo Salinas

Ingersoll Rand.

ASHOKA

CHEDRAUI
cuesta menos

CHUBB®

BanBajío®

SIEMENS
energy

SISAMEX

PEPSICO

BASF
We create chemistry

xignux®

FERRERO
ROCHER

NEORIS Whirlpool

AFIRME FASTENAL®

Uber

DIF
TAPACHULA

DELL

AIESEC

Schlumberger

HELLA

AGUA
MINERAL
BRAVA
Fitzer

AXA

Beiersdorf

BAMX
BANCOS DE ALIMENTOS DE MÉXICO

H
GRUPO
HERDEZ



...

Focus our research activities
and impact to tackle the
challenges people, the planet
and industry face

2024 - 2030 Impact Areas

Health



People

Climate and
Sustainability



Planet

Industrial
Transformation



Prosperity

● In Health...



Aging

- Engineering applications to provide solutions to the physical and mental problems related to aging.



Food Security

- Multidisciplinary research covering the complete food production chain. This includes sustainable agriculture, food transformation improvement, ease of access to nutritious foods, food insecurity reduction and long-term sustainable development.

● In Climate & Sustainability...



Water 360°

- Sustainable water management and treatment, inclusive and resilient cities, health and well-being, climate change mitigation and ecosystem protection.



Sustainable Energy

- Develop and implement innovative solutions to promote the efficient and sustainable use of energetic resources in key industries. This includes electricity generation all the way to intelligent infrastructures and advanced technologies. The final goal is to reduce the environmental impact, stimulate economic development and improve communities' well-being.

● In Industrial Transformation...



Mobility

- Generate knowledge and technologies to advance in the main trends of intelligent mobility: electrification, autonomy, connectivity and consumer experience.



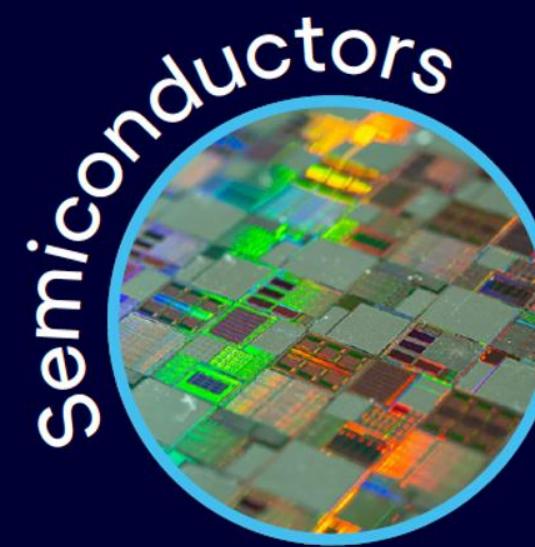
Industry 5.0

- Develop intelligent technologies to improve manufacturing processes, services and logistics, focusing on sustainability and productivity.

Strategic Initiatives



Artificial Intelligence



semiconductors

+ others in the future





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