

Assessed exercise 02  
49th CIDTEC

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# 1 Overview

The “*Congreso de Investigación y Desarrollo*” of *Tecnológico de Monterrey* is evolving towards a new investigation model to match the goals set by the National Schools, the Strategic Approach Research Groups, and the Research Professor Model.

*Tecnológico de Monterrey* has a commitment to research, which constitutes an institutional priority whose objective is to: a) contribute significantly to the academic quality of the teaching-learning process; b) convert scientific and technological knowledge into innovative solutions that benefit society; and c) Transform, through the generation and transfer of knowledge, to the communities in the economic, political and social matters.

The “*Congreso de Investigación y Desarrollo*” provided the means to present the research developed by teachers and students in the following subjects:

- Public politics
- Education, Humanities and Social Sciences
- Medicine
- Mechatronics
- Biotechnology
- Information Technology, Electronics and Communications
- Sustainable technologies
- Business

On the other hand, “*Congreso de Investigación y Desarrollo*” allowed professors, executives, researchers, master’s, professional and preparatory students to actively participate in several events such as:

- Conferences/lectures
- Panels
- *Rómulo Garza* 2018 Awards
- Project Presentations
- Focus-Groups Parallel-Sessions
- Talks
- Networking
- Instructor-Student Workshops

*Tecnológico de Monterrey* outstanding leaders participated in the event within the research areas which have been identified as *strategic focus areas*. In addition, 42 Strategic Approach Research Groups with consolidated research lines and outstanding scientific and technological production were present at the event.<sup>1</sup>

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<sup>1</sup> “49° CONGRESO DE INVESTIGACIÓN Y DESARROLLO”, 2019.

## 2 Collection summaries

### 2.1 Panel: The Future of Entrepreneurship

(Carsrud, Austin, & Pichardo, 2019)

<b>Participants</b>	Alan L. Carsrud, James E. Austin, and Alexei Pichardo
<b>Place</b>	<i>Sala Plenaria, Centro de Congresos</i>
<b>Schedule</b>	Wednesday 30 Jan 2019, 09:30 – 11:00 hrs

Table 1: [Overview] The Future of Entrepreneurship

**“Entrepreneurship needs to be tackled from a different direction”**

## 2.2 Conferencia magistral: El papel de la educación superior en México de cara al futuro que se avecina

(Graue, 2019)

<b>Participant</b>	Dr. Enrique Graue
<b>Place</b>	<i>Sala Plenaria, Centro de Congresos</i>
<b>Schedule</b>	Wednesday 30 Jan 2019, 13:30 – 14:30 hrs

Table 2: [Overview] El papel de la educación superior en México de cara al futuro que se avecina

## 2.3 Conferencia magistral: Creating Top Research-Intensive Universities

(Andersson, 2019)

<b>Participant</b>	Profesor Bertil Andersson
<b>Place</b>	<i>Sala Plenaria, Centro de Congreso</i>
<b>Schedule</b>	Wednesday 30 Jan 2019, 14:30 – 15:30 hrs

Table 3: [Overview] Creating Top Research-Intensive Universities

### “We need a top-down approach”

When articles are written, in regards on what we can do to evolve our *university system*, they are focused very much on the individual actions we take, for instance: the introduction of new technologies (or offer English-only courses) and these are things we should be doing. However, considering that we are end-point users in a complex network, a more effective way of our way of teaching is to tackle the network interactions from the top-down; and that requires a *governance for change* as stated by Andersson.

### 3 Key Takeaways

During the *49 Congreso de Investigación y Desarrollo*, the current direction which research and investigation are taking were presented. For four days, the *Tecnológico de Monterrey* exposed six trends:

1. *Support is lacking.* Enrique Graue stated that funding for research in Mexico has decreased during the current government. On the other hand, Dr. Carmen Hernández Brenes, who works in the development of pharmaceutical products derived from avocado, agrees that researchers shall seek financing support from private companies.
2. Another of the trends is the care of the environment and the reduction of pollution by doing research and investigation related to water processes, clean energy production and the reduction of waste.
3. *Open-access* is one of the tendencies that the researches are facing. This trend refers to the free consumption of academic, scientific and cultural content. Vladimir Burgos (libraries national director of *Tecnológico de Monterrey*), stated that a group of researchers predicted that by 2040, all scientific research will be open.
4. Various projects were presented, whose goals aimed at improving the health of people, through the use of new technologies and innovation in nanotechnology and genetic modification. For instance, new products were developed in a way that waste is reduced by replacing old/obsolete materials. On the other hand, psychobiotics was implemented to transform food into pharmaceutical substances to treat diseases.
5. Another trend is cooperation. During the event, national and international researchers from various universities and companies played a roll within, and some of them are working together in their research. For instance, *Tecnológico de Monterrey* and *UNAM* are working together for educational research and innovation purposes.
6. Finally, *Tecnológico de Monterrey* seeks the development of projects to whose goals are to satisfy the world's needs, with a focus in both social and economic development. James Austin, co-founder of the *Social Enterprise Initiative* of the *Harvard Business School*, said that *Social Entrepreneurship* is “a niche that will be very important in the coming years”.



## 4 Final Thoughts

Last 29 of January, during the *49 Congreso de Investigación y Desarrollo*, was the focus point for innovation and research. Innovation is not only about new inventions, it is also about the use of resources in new ways by adaptation in a uncertain world. Further, innovation means doing something better than it is already been done.

Similarly, (true) innovation is required within our education systems. Often “innovation in education” is understood as the implementation of new software and technologies. However, we need to find new ways to improve learning and engagement. As Alan Carsrud mentioned, “processes are not necessary to be high-tech; people may be running low-tech businesses”.

The education system shall be design to provide the qualities and skills that students need for success as leaders in an uncertain world.

## References

- 49° CONGRESO DE INVESTIGACIÓN Y DESARROLLO. (2019). Retrieved February 10, 2019, from <http://congresodeinvestigacion.tec.mx/index.html>
- Andersson, B. (2019). Creating Top Research-Intensive Universities. In *Tecnológico de monterrey*, Monterrey: Tecnológico de Monterrey. Retrieved from <https://livestream.com/tecmonterrey/cidtec/videos/186886026>
- Carsrud, A., Austin, J. E., & Pichardo, A. (2019). The Future of Entrepreneurship. In *Tecnológico de monterrey*, Monterrey: Tecnológico de Monterrey. Retrieved from <https://livestream.com/tecmonterrey/cidtec/videos/186579668>
- Graue, E. (2019). El papel de la educación superior en México de cara al futuro que se avecina. In *Tecnológico de monterrey*, Monterrey: Tecnológico de Monterrey. Retrieved from <https://livestream.com/tecmonterrey/cidtec/videos/186885924>

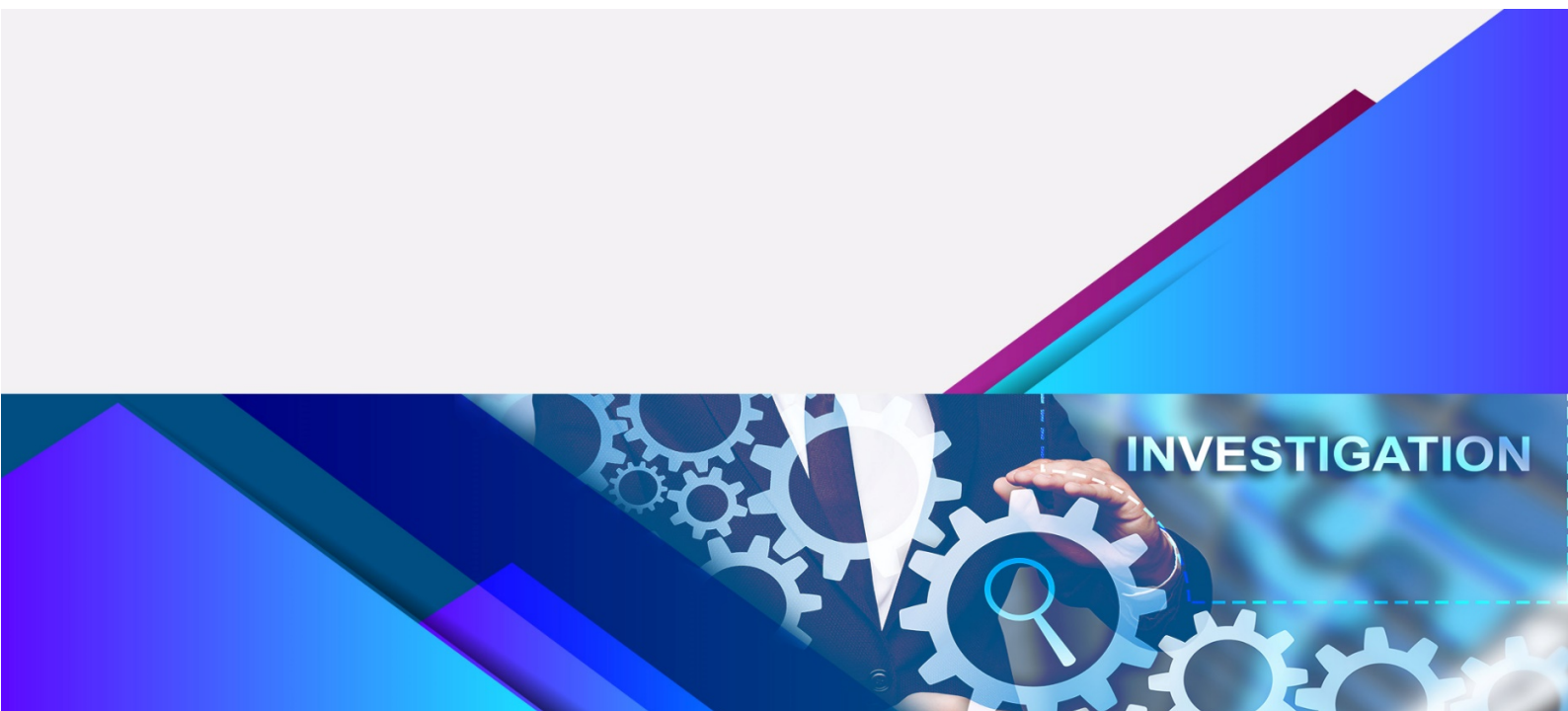
## A Assessment Instructions

[Refer to the next page]

# Research Methodologies and Innovation

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**Assessed Exercise No. 2: 49th Congress  
of Research & Development at Tec**



**Learning Strategy:** Attendance to a Conference

**Resources:** Word processor or any type setting system.

**Due date:** February 12, 2019. 11:59PM.

**Credits:** 5 points, 5% of final grade.

In this assessed assignment, we ask you to participate in a few activities, part of the 49<sup>th</sup> Congress of Research & Development at Tecnológico de Monterrey (<http://congresodeinvestigacion.tec.mx/>), to be held from January 29 – February 1, 2019 at Centro de Congresos, in Monterrey.

"The Congress of Research and Development is a forum, organised by Tecnológico de Monterrey, in order both to disseminate the most recent research findings of our Schools and students, and to acknowledge the scientific, economic and social impact of our research development activities", said doctor Francisco Cantú, former Head of Research at the Vice-Chancellor office for Research and Graduate Studies in Tecnológico de Monterrey.

The congress programme consists of seminars, workshops, panels, parallel sessions, exhibits, and invited talks, which we advise attending.

**Instructions:**

1. Browse <http://congresodeinvestigacion.tec.mx/>, and then follow instructions as needed to get yourself enrolled to the congress; provide a copy of your registration or badge.
2. Visit the congress programme.
3. Organise your time so that you attend at least three events.
4. For every activity you attend, write down a one-page summary outlining the most relevant information that was presented.
5. Provide a discussion including your own thoughts and conclusions about the congress in general.
6. Deliver the assignment through Blackboard the assigned date in a PDF file with a cover. The file's name has to be MII-Homework02-XXXXXXX, where the X's represent your student matriculation number.

## **B 49CIDTEC registration**

[Refer to the next page]

## Antonio Osamu Katagiri Tanaka

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**From:** Sistema de Pre-Registro en línea <cidtec.mty@preregistrate.mx>  
**Sent:** 23 January 2019 12:07  
**To:** Antonio Osamu Katagiri Tanaka  
**Subject:** Pre-registro - 49° Congreso de Investigación y Desarrollo del Tecnológico de Monterrey



Katagiri Tanaka, Osamu

Gracias por pre-registrarse al **49° Congreso de Investigación y Desarrollo del Tecnológico de Monterrey** que se llevará cabo del día 29 de enero al 01 de febrero de 2019 Campus Monterrey.

**Su clave de pre-registro es: CID1624**

Para agilizar la entrega de su gafete de acceso el día del evento, le pedimos llevar impresa su hoja de "Confirmación de Pre-Registro" y presentarla en el área de registro. Para imprimirla de un clic en el siguiente botón:

[Imprimir confirmación](#)

### Información y asistencia técnica

E-mail: [cidtec.mty@servicios.itesm.mx](mailto:cidtec.mty@servicios.itesm.mx)

Atentamente  
Comité Organizador