# 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



BUILD RESILIENT INFRASTRUCTURE, PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION AND FOSTER INNOVATION

#### **RESEARCH**

# Technological Tools Aiding HealthCare

Dr. Ravit Alfandari from the School of Social Work, along with Dr. Yuval Barak-Koren from the Children's Hospital in Philadelphia, USA, has received a research grant from the Schusterman Foundation in the amount of NIS 1,857,000 for a project on technological identification tools in the healthcare system.

#### Al in Art

The latest developments in Al are raising important questions about visual arts and music. As the world evolves, fundamental inquiries like 'What is art?' and 'Who is an artist?' resurface, alongside concerns about intellectual property, censorship, and more. The Sixth Finger conference addresses these critical issues.

### Adaption of IT Solutions

Prof. Doron Kliger, from the Economics Department, and colleagues published an article titled 'Adoption of IT Solutions: A Data-Driven Analysis Approach' in *Information Systems*. The paper offers practical guidance



HIL activity (Credit: HIL)

for enterprise management when developing new IT solutions for business services or rationalizing similar services across different departments, such as after a merger or through unplanned growth.

#### Dr. Dolittle: The Al Version

Prof. Anna Zamansky, head of the Tech4Animals lab in the Department of Information Systems, recently discussed how her team is leveraging the Al revolution to enhance the health of pets and livestock. The lab is developing tools that utilize artificial intelligence to interpret animals' feelings through their facial expressions—determining if they are happy, stressed, or in pain. This innovation enables

early disease detection in pets and helps identify which animals in a herd require medical attention.



Prof. Anna Zamansky (Credit: Ofer Hajayov)

### **COMMUNITY ENGAGEMENT**

## From Challenge to Entrepreneurship

A unique collaboration is

underway between graduates of IDF 8200 Unit and the Center for Innovation & Entrepreneurship at the University of Haifa, This program brings together young researchers and professionals from welfare, health, and high-tech sectors to address climate, health, and welfare challenges in Haifa while training a new generation of social entrepreneurs. Key topics include managing expired medications to prevent water cycle contamination, promoting sustainable hospitals, preserving mature trees in urban areas, and reducing waste in public spaces and along coastlines.

#### Fourth Year Hackathon

The fourth hackathon in memory of Police Officer, Brigadier Lior Boker. For the first time, the hackathon was offered as an academic course.

#### LEARNING AND STUDENTS

# Drones Save Lives: A Unique Course in Maritime Strategy

Graduate students in the
Maritime Strategy program
recently participated in a field
exercise for the course 'Research
Using Unmanned Tools,
Photography, and Advanced
Technologies', led by Dr. Gur
Mizrahi. The exercise involved
planning a complex mission and
flying drones under challenging

conditions with GPS disruptions, which the students successfully navigated. This course introduces students to drone technology, professional photography, and the integration of advanced technologies in emergencies, highlighting drones' potential as vital tools for maritime rescue and improving survival chances.

#### **Data Science Summer Course**

Over the last few years data science tools, and especially machine learning (ML) techniques, have become increasingly popular and are now widely used in both academia and industry. The Haifa Data Science Summer School provides an overview of the variety of tools employed in machine learning. The course is aimed at students from diverse disciplines, with no prior experience using machine learning, and programming. The course was open to graduate (MSc and PhD) students. postdocs and research scientists from the University of Haifa and affiliated institutes.

#### Crisis-Driven Innovation

A new class at Kayma Center deals with social Innovation in times of crisis. This refers to new strategies, concepts, ideas, and organizations addressing existing or emerging social needs and creating new mechanisms for action. Social innovation can generate solutions to existing systemic challenges or provide responses to new issues. In times of crisis, the role and need for social innovation becomes even

more critical. This phenomenon is referred to as 'crisis-driven innovation'.

#### **OPERATIONS**

#### 'Accelerator' program

Carmel, Ltd. the financial company of the university, launched a unique acceleration program for the academic staff. The 'Accelerator' program aims to promote projects and transfer knowledge from the university to industry.

#### New VR Room

A <u>VR room</u> has been launched in the library, allowing for hands-on work and experimentation with virtual reality technologies. This service is a collaborative initiative between the Younes and Soraya Nazarian Library and the Online Learning Unit. This lab is expected to transform teaching and research at the university, providing students and researchers with innovative tools to deepen their knowledge and understanding in various fields.

#### Excellence in Online Learning

According to a report from the Knesset Research Center, the University of Haifa offers the most online learning courses (an achievement of the Online Learning Unit). Ms. Esti Levy, head of the unit, also participated in the university's Ambassadors program, where she showcased the extensive options available for professors to utilize.

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