



# SMART CITIES – summer course

July 22, 2019 – August 8, 2019

**4 Credits (minimum 52 academic hours)**

**Instructor:** Dr. Ronit Purian

Urbanization is one of the great challenges and opportunities of this century. The last decades have witnessed unprecedented population growth with the implication that today, for the first time in human history, more than half of the world population lives in cities. Furthermore, the last decades have also witnessed unprecedented development of big data and data mining tools, IoT (Internet of Things), and AI (artificial intelligence). These have the potential to revolutionize the dynamics and structure of cities and the lives of those who inhabit them. However, although the smartification of cities implies an integration of the real and virtual worlds, data integration is still scarce.

## Project outline

Develop a data-based "planning process" or "planning approach" that takes into account the various aspects of urban life (traffic, accessibility to green spaces, waste management, urban food supply chain, micro-climatic conditions and vegetation, and other ecological and socioeconomic aspects):

- Group projects (teams of 3-5 people) will be focused on a specific area in Tel Aviv.
- Final papers (personal) will identify the **generic aspects**, shared by Tel Aviv (as presented in your group project) and by a city you know well (in China / Brazil / USA / Germany, etc.); as well as the **unique aspects** that characterize different places.

In your work, note that you:

1. Identify the potential impact of technological mechanisms on social and environmental issues.
2. Propose creative solutions to threats and opportunities.
3. Understand the physical aspects of digital identities – in the urban experience, in nature, in movement and in the human encounter in space.
4. Plan partnerships between the different sectors in society (public, private, civil society organizations, NGOs etc.) in areas where the cooperation is relatively new, and after acquiring the relevant knowledge.
5. Think critically and move into practice: Responsibility in technology management and data integration.
6. Promote social and environmental values, beyond the profit line (avoid green-wash).
7. Design your own life, not just the system / society, by observing reality.

## **Participants** (in alphabetical order)

### ***Academy***

Dr. Sigal Portnoy

Prof. Oded Potchter

Dr. Tal Raviv

Dr. Orli Ronen

Gil Barnea

Golan Ben-Dor

Jonathan Dortheimer

Nir Fulman

Moshe Mandelmilch

Noa Mandelmilch

### ***Government***

Adv. Sharon Shemesh Azarya – Israeli Privacy Protection Authority

### ***Industry***

Avi Aflalo – Simplex-Mapping

Noga Kap – i3 Equity Partners

Avi Nachmias – Axilion Smart Mobility

Eyal Shmueli – Simgo Mobile

Yael Shmueli – General Motors

Michelle Specktor – IPgallery

### ***Tel Aviv municipality – Computing Division***

4 Antokolsky Street, Tel Aviv

Liora Shechter, CIO

Itzhak Ben David, Deputy CIO

Sigal Sardes, Shira Rosio – Mobile app

Batya Meiri – DigiTel, TLV smart card

Hadas Meir – Open data

Shani Bachar – BI

Liron Ben-Eliahu – DigiDog, DigiDug, etc.

David Aharoni, Avi David – Security Control Center and Municipal Situation Room

### ***Engineering Division***

5 Philon Street, Tel Aviv

Avi Wiesman – Traffic control and traffic lights operation center

Kasem Slalha – Planning Department

***Important dates (long days!):***

**Field experiments:**

July 24-28 (Wed, Thu, Sun): Traffic – AV;

August 1-2 (Thu-Fri): Climate – urban heat island.

**Visits:**

July 29 (Mon): Hiriya Recycling Park – Center for Environmental Education

August 5 (Mon): Tel Aviv municipality – three locations: <https://goo.gl/maps/PiiuDshv7GzQKoBZ6>

- Computing Division, 4 Antokolsky Street
- Engineering Division, 5 Philon Street
- Security Center, 69 Ibn Gabirol Street

***Classes take place at:***

**Dan David** building, room 207 <https://goo.gl/maps/fWEWUYHXAzteEjvi9>

**Yad Avner** building, room 115 & lab 232 (August 4-8) <https://goo.gl/maps/hawn9fHbtDPKDYaL9>

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