Greetings
Dr. Anat Bonshtien, Chairwoman and Director, Smart Mobility Initiative at Israel’s Prime Minister’s Office

Powering Public Mobility
Dr. Oren Shoval, Co-founder and CTO, Via

The Israeli Smart Transportation Research Center (ISTRC) - Presentation
Prof. Yoram Shifman, Head, ISTRC and Tchiya Allon, General Manager, ISTRC

The Rapidly Changing Landscape of Traveler Behavior and Values: Emerging Technologies and an Unexpected Pandemic
Prof. Ram Pendyala, Professor, School of Sustainable Engineering and the Built Environment, Arizona State University
The Israeli Smart Transportation Research Center

Prof. Yoram Shiftan, Tchiya Allon
Technion
About The Center

The Israeli Smart Transportation Research Center at the Technion in collaboration with Bar-Ilan University was established jointly by the Smart Mobility initiative in Israel's Prime Minister’s Office and the Council For Higher Education, with the aim of encouraging research and development, entrepreneurship and industry in the field of smart mobility in Israel.

The establishment of the center represents a significant and important step in the implementation of the Israel’s National Plan for Smart Mobility, and another step towards making Israel a leading center of knowledge in this area.
Smart Transportation
Zero Externalities Vision

Safety & Security
- Efficiency
- Needs
- Mobility As A Service
- Equity
- Accessibility
- Reliability

Environmental quality
- Air quality noise
- Clean energies
- Sustainable transportation

Zero Casualties
- Resilience
- All travelers
- Automation and connectivity

Zero Delays
- Resilience
- All travelers
- Automation and connectivity

Smart Transportation Center
Vision

Be the center of choice for smart transportation
Research and Development community; leverage the overall
research activities and position Israel as a world leader in the field
Goal 1 - Research

Generate cutting edge collaborative research, insights and knowledge

• Initiate and leverage joint research
  • Inter disciplinary
  • Inter sectorial

• Professional committees (needs and gap analysis)
Professional Committees

Vehicles and travel modes
Fuel cells, electric vehicles, batteries, charging, vehicle design (human factors)

Traffic management and control
Traffic flow, safety, effectiveness, mixed traffic in different automation levels

Innovative transportation services
Mobility as a service, personalized transport, shared transport, mass transit

Policy, transportation planning and smart cities
Urban planning, public policy, public space allocation, social issues and equity

Road users’ behavior
Travel behavior, demand modeling, behavioral change, incentives, innovative data collection

Mobility safety and security
Vehicles in different automation levels, non-motorized modes
Goal 2 – Human Capital

Develop and empower human capital

• Scholarship for students and researchers

• Dedicated learning program
Goal 3 - Community

Establish an R&D community to boost effective collaboration and inspire innovation

• Professional committees (interdisciplinary, all academics)

• Local and international conferences
International Support & Collaboration
Goal 4 – Hub

Knowledge Center for Research & Development

• Portal & support center

• Expand open data bases
Advisory Board

- Dov Moran, Grove Ventures
- Zohar Zisapel, Rad Group
- Rafi Nave, Samuel Neaman Institute
- Barak Goldstein, Terra Venture Partners
- Prof. Nathan Gartner
- Prof. Dan Arieli
- Prof. Nicole Adler
- Prof. Hillel Bar Gera
- Prof. Moshe Ben-Akiva
- Dr. Tsippy Lotan
- Orlie Dahan, EcoMotion
Center Management

Erez Dagan
Gai Berkovich
Prof. Yoram Shifman
Head of Center
Prof. Avigdor Gal
Prof. Itzhak Benenson
Avi Tamir
Dr. Oren Shoval
Tchiya Allon
General Manager
Prof. Sarit Kraus
Prof. Doron Aurbach
Steering Committee

• Prof. Yuval Alovichi - Ben-Gurion University of the Negev - Committee Chair

• Dr. Anat Bonshtien - Chairwoman and Director, Smart Mobility Initiative at Israel’s Prime Minister’s Office

• Dr. Irit Juwiler - Shamoon College of Engineering

• Prof. Daniel Shefer - Technion

• Shimon Yitzhaki - Planning & Budgeting Committee, Council For Higher Education
First Year - Focus

Establish the center foundations
• Define working plan, roles, processes & methodologies and recruit staff

Establish the Smart Transportation Research Community
• Nominate 9 professional committees chairs & forum
• Academy survey - design to map researches, areas of interest, willingness to participate & review proposals
• Knowledge gap research
• Launch event
• Annual conference

Needs assessment - Define operational activities promoting research and human capital development
• Stakeholders survey

Call for Scholarship - Research Awards & Conferences

Call for Research - “CoroNa” and first main call

Portal - Put in place effective up-to-date knowledge center, reflecting the accumulated knowledge in the field
Committees Chairs - Transportation content

1. Vehicles and transport modes - Prof. Amir Shapiro, Ben-Gurion University of the Negev
2. Traffic management and control - Prof. Jack Haddad, Technion
3. Innovative transport services - Dr. Yuval Hadas, Bar-Ilan University
4. Policy, transportation planning and smart cities - Prof. Eyal Yaniv, Bar-Ilan University
5. Road users' behavior - Prof. Erel Avineri, Afeka, Tel Aviv Academic College of Engineering
6. Mobility safety and security - Prof. Wafa Elias, Sami Shamoon College of Engineering, Ashdod

Committees Chairs - Additional disciplines

1. Big data and data analysis - Dr. Ayelet Gal-Tzur, Ruppin Academic Center
2. Automation and connectivity - Prof. Shraga Shoval, Ariel University
3. Models and algorithm - Prof. Alfred M. Bruckstein, Technion
Professional Committees Roles & Responsibilities

Committees Members
Academia, Industry and Decision Makers / Public Sector

Roles & Responsibilities

• Define focus areas & recommend activities
• Define Priorities
• Define Call for Research
• Take part in proposals review & selection
• Gather cutting-edge knowledge & activities in the committee domain
• Bring together stakeholders in the field
• Identify strategic interfaces & encourage research collaboration
• Provide cutting edge knowledge to the center’s newsletter, portal, center conferences and workshops

Committee Chairs’ Forum
• Discuss center’s strategic issues and recommend research directions
Outcome

Call for Scholarship – Overall 53 applications (7 Israeli academic institutions)
  • Research Awards - 41
  • Conferences – 12

Research Gap Analysis – 9 in progress

“CoroNa” Call for Research – Overall 38 proposals (13 Israeli academic institutions)
  • Traffic management & control - 2
  • Transport planning - 20
  • Road safety - 1
  • Electrical engineering - 2
  • Chemistry - 1
  • Mechanical engineering - 4
  • Computer science - 2
  • International trade, ships - 1
  • Industrial/technological management - 5
Coming Soon

• Virtual Annual Conference – **Smart Transportation in Challenging Reality**

• Call for Research – Main call for next year (תשפ”א)

• Call for Scholarship - Research Awards & Conferences (תשפ”א)

• Students’ Conference

• Web Site → Portal
Thank you and PLEASE CONTACT US

istrc@technion.ac.il

Fill out our Stakeholders survey or Academy survey