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## Curriculum Vitae

Full name: **Daniel Czamanski**  
Place of birth: Jerusalem, Israel  
Address: Faculty of Economics and Business Administration  
Ruppin Academic Center  
Emek Hefer, 4025000 Israel  
Telephone: 972-54-622-2280  
E-mail: [danny@czamanski.com](mailto:danny@czamanski.com)

### 1. Education

1974 Ph.D. (Economics), the Maxwell School, Syracuse University, Syracuse, N.Y., U.S.A. Advisor: Jesse Burkhead  
1971 MA (Economics), Brown University, Providence, R. I., U.S.A.  
1970 BA (Economics), Dalhousie University, Halifax, Canada

### 2. Appointments

#### Academic

**Ruppin Academic Center**  
Faculty of Economics and Business Administration  
2019- Full Professor and  
Head of real estate economics and land assessment program  
  
**Western Galilee College**  
2017-19 Full Professor  
2017-18 Head of Sir Harry Solomon School of Management  
2016-18 Head of Department of Economics

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	<b>Technion - Israel Institute of Technology,</b> Faculty of Architecture and Town Planning, Haifa, Israel
1983-16	Associate Professor, tenured in 1986
1981-82	Visiting Associate Professor Samuel Neaman Institute for Public Policy
2014-17	Senior Research Fellow
	<b>The Ohio State University,</b> Department of City and Regional Planning, Columbus, Ohio, U.S.A.
1980-83	Tenured Associate Professor
1974-80	Assistant Professor
	<b>The Ohio State University,</b> the National Regulatory Research Institute, Columbus, Ohio, U.S.A.
1985-87	Visiting Scholar
1980-83	Institute Fellow in Economics
1976-80	Faculty Research Associate
	<b>The Academy for Contemporary Problems,</b> Columbus Ohio and Washington, D. C., U.S.A.
1981-83	Associate Fellow in Energy and Resource Management

#### **Administrative**

	<b>Technion - Israel Institute of Technology</b>
2014-15	Member of the Academic Council of the Division of Continuing Education and External Studies
2011-12	Head Judge, Students' Disciplinary Court
2010-14	Associate Dean for Research and Faculty Development, Faculty of Architecture and Town Planning
2000-02; 08-10	Associate Dean for Research and Graduate Studies, Faculty of Architecture and Town Planning

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1998-00; 2012 Prosecutor, Students' Disciplinary Court

1991-92 Assistant to the Dean of Undergraduate Studies on matters of discipline and Prosecutor, Students' Disciplinary Court

1989-91; 10-11 Judge, Students' Disciplinary Court

### **The Ohio State University**

1982-83 Member of the Professional Leaves Committee

1980-81 Member of the Ph.D. Degree Committee, Graduate School

1979-80 Member of the Research and Development Committee, College of Engineering

### **Editorial Experience**

Member of the Editorial Boards of the following journals:

Since 2019 *Canadian Journal of Regional Science*

Since 2012 *Computers, Environment and Urban Systems*

Since 2010 *European Spatial Research and Policy*

Since 2010 *Biuletyn Szadkowski* (in Polish)

2008-14 *Discrete Dynamics in Nature and Society*

2007-14 *The Open Environmental Science Journal*

1987-04 *Urban Systems* (formerly *Sistemi Urbani Journal*)

1980-83 *Journal of the American Planning Association*

2010-18 Coordinating editor of a New Book Series: *Cities and Nature*  
Springer, International Publishers (other editor: I. Benenson,)

2011 Guest editor of a special issue: *Complexity, Evolution and Spatial Phenomena*  
*Journal of Geographical Systems*, 13:1

2010 Co-editor (with Henk Folmer) of a special issue: *New Methods in Regional Science Annals of Regional Science*, 47:3

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2003-05      Co-Editor, *Energy Insights*, Canadian Energy Research Institute, Calgary, AB, Canada

1979-83      Technical Advisory Board Member and Technical Editor  
*Journal of the American Planning Association*

Referee to (various years):

*The US National Science Foundation*

*The Israel National Science Foundation*

*The United States-Israel Bi-national Science Foundation*

*D.C. Heath, Lexington Books*

*The Journal of the American Planning Association*

*Regional Science and Urban Economics*

*The European Journal of Operational Analysis*

*The Annals of Regional Science*

*The Regional Science Journal*

*Geographical Analysis*

*Environment and Planning B*

*Journal of Energy Economics*

*Computers, Environment and Urban Systems*

*Letters in Spatial and Resource Sciences*

*Urban studies*

### **3.            Teaching**

#### **Recent Courses Taught**

At Western Galilee College (undergraduate courses)

Intro to Microeconomics; Intro to Macroeconomics; Urban Economics;

Introduction to Real Estate Management; Research Seminar; Practicum;

At the Technion - Israel Institute of Technology

Quantitative Thinking for Planners, required graduate course; Urban

Economics for Planners, required graduate course; Economic Considerations

for Architects, undergraduate course; Plan Programming, graduate course;

Sustainability in Energy, Water and Land-Use Systems, graduate course;

Energy Economics, graduate course;

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### **Instructional Initiatives**

- 2009-13      Initiated and organized a bi-weekly workshop on peri-urban dynamics and sustainability with 20 faculty members and graduate students from various universities
- 1987-03      Initiated, organized and managed a new specialization in architecture and economics for graduate students in architecture

### **Supervision of Theses and Dissertations**

#### **Completed**

#### **M.Sc. Theses**

- 2013            Nika Zaretzki, Expansion of Coastal Cities into the Marine Environment, Incorporating Floating Platforms - Conceptual Development (M. Burt as principal advisor)
- 2011            Bruce Levin, Mikveh Israel: Preserving the Landscape of a Cultural Heritage Site
- 2011            Noah Balter, Spatial Dynamics of Urban Ecology
- 2009            Joseph Altalef, Spatial Dynamics of Guatemala City
- 2009            Einat Golan, The Height Dimension in Urban Evolution: The Case of Tel Aviv
- 2004            Idan Porath, The Spatial Order inside Cities - the Case of Cultural Centers in the Tel Aviv Area (D. Czamanski as principal advisor with L. Benguigui)
- 2004            Ofri Dgani, Factors of Success in the Viability of the Kibbutz: The Regional Council's Contribution to Sustaining the Kibbutz as a Unique Form of Settlement
- 2004            Efrat Blumenfeld, The Dynamics of Urban Morphology in Tel Aviv (D. Czamanski as principal advisor with L. Benguigui) currently Lecturer at Tel-Aviv University

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- 2003 Eli Kobee, *A Model for Selection of Acoustic Protection Alternatives in Residential Areas* (G. Rozenhoize as principal advisor)
- 2003 Nitza Appelman, *Cross Border Passages as Generator for Development and the Implementation in Israel*
- 2003 Ariel Waterman, *Land Subdivision and Penetration of Building Types in Kfar Saba and Raanana*  
(D. Czamanski as principal advisor with L. Benguigui) currently City Engineer of Haifa
- 2002 Lior Datz, *Towards Architecture in an Ecological Era and Increasing Density - Development of an Integrating Model for Examination and Evaluation of the Bounding Density*  
(with M. Burt as principal advisor)
- 2002 Eyal Sagee, *Considerations in the Design of the Physical Environment for Teamwork in Knowledge Based Companies*
- 2001 Hagai Yaron, *Health Tourism and Ecological Desert Tourism - Perceived Density and Willingness-to-Pay*
- 2001 Limor Peretz, *Urban Corporation as an Instrument for Local Economic Development: Characteristics, Performance and Evaluation*
- 2000 Menahem Adar, *Sustainable Use of Agricultural Land in Arab Settlements in Israel*
- 2000 Lilach Berger, *The Legend of Haifa as 'The Sleeping Beauty' - Supply and Demand of Culture and Entertainment in Haifa*
- 1999 Michal Tepper, *Residential Neighborhoods Next to Kibbutzim*
- 1998 Naif Abu Sharkie, *Small Businesses and Their Networks among the Arab Minority in Israel*
- 1998 Lior Apt, *The Betterment Tax Burden in Israel*
- 1998 Maria Marinov, *Non-Continuous Distribution in the Tel Aviv Metropolitan Area - A Dynamic Model* (D. Czamanski as principal advisor with L. Benguigui)

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- 1998 Yossi Amir, Travel and Tourism Service Centers - Towards an Integrative Model for Decision-Making for Location and Architectural Planning and Design
- 1997 Tamar Canetti, The Evaluation of the Status of Israel in the Middle-East Air Transport Network
- 1997 Ofer Fridberg, Private Rental Housing in Israel - Between Economic Feasibility and Social Need
- 1996 Nachum David, Entrepreneurship as an Avenue Creating Jobs for Women in the Kibbutz
- 1996 Liat Peled-Baruch, Women Entrepreneurs and Small Business Support in Israel currently Northern District Planner, Ministry of the Interior
- 1994 Patrisia Lazarus, A Plan for the Promotion of Non-Agricultural Entrepreneurship in Agricultural Villages (Moshavim)
- 1994 Debbi Simmons, An Evaluation of Current Efforts to Promote Entrepreneurship in Israel
- 1994 Amos Brandeis, Planning of Science and Research Parks
- 1994 Tamir Ben-Shahar, Privatization Potential of Municipal Services currently CEO Czamanski Ben Shahar and Co. Inc.
- 1993 Gilat Benchetrit, The Local Tax Burden on Manufacturing Industries in Israel
- 1992 Tamar Trop, Estimating the Willingness-to-Pay for Transportation Facilities currently Lecturer, Department of Geography and Environmental Studies, University of Haifa
- 1991 Zila Magura, The Influence of Settlement Form on Entrepreneurial Activity in the Galilee
- 1991 Arza Pinchuck, Business Services in Development Towns: An Example of Software Houses

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- 1991 Judith Schmidt, Approaches to the Development of Tourism in Acre
- 1990 Gabriel Dapah, Industrialization and Entrepreneurship in Rural Settlements in Ghana
- 1990 Sergio Cleiman, The Behavior of Pedestrians in the CBD, Haifa
- 1990 Samuel Bahat, The Identification of Entrepreneurship Promoting and Delaying Factors in Development Towns in Israel
- 1990 Andrew Keye, The Economics of Entrepreneurship in Developing Countries
- 1989 Aryeh Erner, Firm Organization and Plant Location in the Upper Galilee
- 1988 Amalia Karp, The Economic Inefficiency Effects of Location Subsidies - A Case Study
- 1987 Judith Eini, The Jewish Settlement in Judea and Samaria: In Filling of the Tel-Aviv and Jerusalem Metropolitan Areas
- 1987 Abi Miller, The Productivity of Fire Services in Israel
- 1986 Thomas Taylor, Mimicking and Entrepreneurship
- 1986 Stephen Buabang, Entrepreneurial Behavior and Institutions
- 1986 Uzi Sharon, Quality of Life and Inter-Urban Migration in Israel
- 1986 Ziva Hochman, The Use of Integer-Programming Models for Planning School Locations
- 1985 Rassem Hamaisi, Industrialization in Arab Villages in Israel, Associate Professor, Geography Department, University of Haifa
- 1982 Ariel Dardik, A Study of Public Transportation Ridership Decline in Haifa

#### **Doctoral Dissertations**

- 2016 Marina Toger, The Impact of Urbanization and Land Use Changes on Biodiversity at the Urban Edges (D. Czamanski as principal advisor with I. Benenson) Senior Lecturer at Uppsala University, Sweden



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- 2016 Asya Natapov, Role of Urban Attractors in Emerging Pedestrian Movement Patterns (D. Fisher-Gewirtzman as principal advisor) Postdoctoral fellow at CASA, University College London, UK
- 2012 Dani Broitman, Ph.D. Peri-urban Built-Area Spatial Dynamics (D. Czamanski as principal advisor with I. Benenson) Senior Lecturer at Technion - Israel Institute of Technology
- 2009 Rafi Roth, Ph.D. The Spatial Dynamics of High-Rise Buildings: The Case of Tel Aviv (D. Czamanski as principal advisor with L. Benguigui)
- 2005 Efrat Blumenfeld, Ph.D. Dynamics of Urban Morphology in the Tel Aviv Metropolitan Area (D. Czamanski as principal advisor with L. Benguigui) currently Senior Lecturer at Tel-Aviv University
- 2013 Maria Marinov, Ph.D. Spatial Dynamics of the Retail Sector in Israel (D. Czamanski as principal advisor with L. Benguigui)
- 2001 Gilat Benchetrit, Ph.D. Housing Prices in Israel: Causes and Effects
- 1999 Ziva Hochman, Ph.D. Willingness-to-Pay for the Educational Program 'Parents Studying and Teaching'
- 1998 Arie Maharshak, Ph.D. Industrial Parks - Competitive Strategic Marketing currently President and Associate Professor, Ort-Browde College, Carmiel
- 1993 Thomas Taylor, D.Sc. Spatial Aspects of Entrepreneurial Behavior currently lecturer, Kumasi University, Ghana
- 1990 Eyal Karni, D.Sc. An Approach to the Comparative Evaluation of Construction Methods of Light Space Structures (M. Burt as principal advisor) currently Senior Teaching Associate, Faculty of Architecture, Technion - Israel Institute of Technology

### **In Progress**

Julia Grinblat, PhD student at Tel Aviv University, Peri-urban Ecological Spatial Dynamics (I. Benenson as principal advisor)

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## **4. Research**

### **Research Interests**

- Application of complexity theory to the study of spatial and location economics, real estate development, urban dynamics and planning; non-linear models of urban morphology; cellular simulation models; urban growth models
- Economic and planning issues in the energy and water sectors and urban and national infrastructure; re-organization of electricity and water sectors

### **Sponsored Research**

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|---------|---|
| 2017-20 | Co-Principal Investigator (Dani Broitman)<br>Urban dynamics<br><b>\$65,000 funded by the Israel Science Foundation</b>  |
| 2015-17 | Principal Investigator<br>Possible phase transitions in the urban morphology of mature cities<br><b>\$65,000 funded by the Israel Science Foundation</b>  |
| 2010-14 | Co-Principal Investigator (R. Prasse)<br>Cities, nature and life between them: the dynamics of human and natural ecosystems and the interrelationships between them<br><b>Euro 175,000 funded by the Niedersachsen-Israeli Research Cooperation Program</b> |
| 2010-13 | Co-Principal Investigator (D. Malkinson)<br>The joint dynamics of cities, agriculture and nature and sustainability<br><b>\$121,000 funded by the Israel Science Foundation</b>   |
| 2007-09 | Principal Investigator<br>Urban 3D Spatial Dynamics<br><b>\$80,000 funded by the Israel Science Foundation</b>  |
| 2006-07 | Principal Investigator<br>Israel's Energy Infrastructure Needs until 2028<br><b>\$5,000 funded by Mosad Neaman, Technion - Israel Institute of Technology</b>   |

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- 2002-03      Co-Principal Investigator (L. Benguigui)  
Spatial Dynamics of the Commercial System in Israel  
\$14,000 funded by Research and Educational Funds
- 2001-03      Co-Principal Investigator (L. Benguigui)  
Urban Spatial Dynamics  
**\$80,000 funded by the Israel Science Foundation**
- 1999-00      Co-Principal Investigator (U. Shamir)  
Privatization of Water in Israel  
funded by the Israel Water Commission
- 1998-01      Principal Investigator  
Israel's Infrastructure Needs and Provision - Preliminary Analysis  
\$ 5,000, funded by Mosad Neaman, Technion - Israel Institute of Technology
- 1997-98      Principal Investigator  
Small Firm Finance Problems  
NIS 10,000 funded by the Small Business Administration of Israel
- 1994-95      Principal Investigator  
The Privatization of Municipal Services  
NIS 10,000 funded by the Technion V.P.R. Fund and Mifal Hapais
- 1994          Principal Investigator  
Evaluation of Immigrant Entrepreneurship  
NIS 50,000 funded by the Ministry of Absorption
- 1990-91      Principal Investigator  
The Reorganization of the City Engineers' Office in Haifa  
Funded by the Haifa Municipality
- 1989-91      Co-Principal Investigator (M. Burt)  
The Feasibility of Standard Gypsum Partitions in Israel  
funded by the Israel Ministry of Housing

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- 1989-91      Principal Investigator  
The Reorganization of the Property Tax in Haifa  
funded by the Haifa Municipality
- 1988          Co-Principal Investigator (R. Alterman, D. Shefer)  
The New Settlement in the Galilee - An Evaluation Study - Extension  
NIS 24,000 study funded by the Ministry of the Interior
- 1987-88      Co-Principal Investigator (S. Czamanski)  
An Economic Development Plan for Region 2000  
NIS 120,000 funded by the Jewish Agency
- 1987-88      Co-Principal Investigator (R. Alterman, D. Shefer)  
The New Settlements in the Galilee - An Evaluation Study  
NIS 128,000 study funded by the Ministries of Interior and Housing, the  
Israel Lands Authority and the Jewish Agency
- 1986          Principal Investigator  
The Feasibility of Developing Tourism in the Arab Sector in Israel  
\$30,000 funded by Koor Industries Ltd
- 1986-88      Co-Principal Investigator (H. Law-Yone)  
The Use of Multi-Tasking and Multi-User Micro Computers in the Instruction  
of Urban and Regional Planning Studios  
funded by the IBM-Israel Research Center
- 1986          Principal Investigator  
A Framework for Industrial Development in Region 2000  
\$50,000 project funded by the Jewish Agency, Northern District
- 1986          Principal Investigator  
Flexible Pricing of Natural Gas in the U.S.A.  
\$80,000 project funded by the National Association of Regulatory  
Commissioners
- 1984-85      Principal Investigator  
Case Studies in Arab Entrepreneurship  
\$30,000 project funded by Koor Industries Ltd

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- 1983-84      Co-Principal Investigator (M. Meyer-Brodnitz)  
Employment Potential of Arab College Graduates in Israel  
\$30,000 project funded by Koor Industries Ltd
- 1982-83      Co-Principal Investigator (K. Kelly)  
Pricing Access to Local Telephone Networks  
\$60,000 project funded by the National Association of Regulatory  
Commissioners
- 1981          Principal Investigator  
Benefit-Cost Methods for Evaluating Electricity Rates Reform  
\$64,000 project funded by the West Virginia Public Utilities Commission
- 1981-82      Principal Investigator  
Factors Affecting Rural Industrialization in Israel  
funded by the Jewish Agency
- 1981          Co-Principal Investigator (K. Kelly)  
Benefit-Cost Analysis of Colorado Rate Reforms  
\$44,000 project funded by the Colorado Public Utilities Commission
- 1981          Principal Investigator  
The Measurement of Regulatory Incentives  
\$110,000 project, funded by the U.S. Department of Energy
- 1981          Principal Investigator  
The Introduction of Incentives in Regulation  
\$35,000, funded by the Pennsylvania Public Utilities Commission
- 1980          Principal Investigator  
Regulatory Performance Incentives  
\$125,000 project funded by the U.S. Department of Energy
- 1980          Principal Investigator  
Marginal Cost Pricing and Time-of-Use Rates Workshops for State  
Regulatory Agencies  
\$69,000 project funded by the U.S. Department of Energy

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- 1979-80 Co-Principal Investigator (K. Kelly)  
Regulatory Performance Incentives  
\$30,981 project funded by the U.S. Department of Energy
- 1979 Principal Investigator  
The Missouri Rate Reform Initiative  
\$14,837 funded by the U.S. Department of Energy
- 1979 Principal Investigator  
Economic Evaluation of Time-of-Day Electricity Pricing in Massachusetts  
\$27,252 study funded by the U.S. Department of Energy
- 1979 Co-Principal Investigator (K. Kelly)  
A Cost-Benefit Analysis of Experimental Usage-Sensitive Pricing of  
Telephone Service  
\$27,000 grant funded by the Public Utilities Commission of Maryland
- 1978-79 Principal Investigator  
Natural Gas Allocation Policies during Periods of Excess Supply  
\$60,000 project funded by the Public Utilities Commission of Ohio
- 1978-79 Co-Principal Investigator (J. M. Guldmann)  
Regulatory Simulation Model for Gas Distribution Systems  
\$47,000 study funded by the U.S. Department of Energy
- 1978-79 Co-Principal Investigator (J. M. Guldmann)  
Regulatory Simulation Model Extensions  
\$40,000 grant funded by the Public Utilities Commission of Ohio
- 1978-79 Co-Principal Investigator (J. M. Guldmann)  
Analysis of New Service Policies for the Columbia Gas Company of Ohio  
\$20,000 study funded by the Public Utilities Commission of Ohio
- 1978 Principal Investigator  
A Cost-Benefit Analysis of Experimental Usage-Sensitive Pricing of  
Telephone Service  
\$20,000 grant funded by the Public Utilities Commission of Ohio

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- 1977      Principal Investigator  
Inter-fuel Substitution in Ohio's Energy Consumption  
\$10,000 grant funded by the Ohio Energy Resources Agency
- 1976      Principal Investigator  
The Feasibility of Gas Storage Program in Ohio  
\$38,861 study, funded by the Public Utilities Commission of Ohio
- 1975-76   Principal Investigator  
A Study of Electricity Pricing Policies for Ohio  
\$102,754 study funded by the Public Utilities Commission of Ohio
- 1974-75   Co-Principal Investigator (P. Lande)  
Location Preferences of High Technology Industries  
\$60,000 grant funded by the National Science Foundation

## **5.            Professional Practice**

### **Professional Projects**

- 2012-13      Head, Electricity Master-Plan Team for Israel  
Israel Ministry of Infrastructure, Energy and Water Resources and Tahal  
Group
- 2011-12      Member, Smart Grid Committee  
Israel Ministry of Infrastructure, Energy and Water Resources
- 2009-10      Member, National Water Master-Plan Team  
Israel Water Authority  
*(economics and regulation, intermittent meetings)*
- 2006-07      Advisor to the Director General of the Israel Ministry of Finance  
*(restructuring of the electricity supply system, intermittent meetings)*
- 2003-05      Senior Vice President, Canadian Energy Research Institute, Calgary,  
Canada  
*(during sabbatical)*

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- 1998-01      Consultant to the CEO, Israel Electric Corporation  
*(restructuring of the electricity supply system, intermittent meetings)*
- 1997-01      Chairman of the Board of Directors, Czamanski-Goldman Management and Engineering Ltd
- 1996-97      Advisor to the Director General, Ministry of Finance, Israel Land Authority and the Kibbutzim Economic Restructuring Inc.  
The Future Use of Kibbutzim's Lands
- 2002-17      Founder and director  
Complex City Research Lab - <http://complexcity.csregistry.org/>
- 1992-94      Advisor to Ministers of Infrastructure, Energy and Water Resources (A. Rubinstein, M. Shahal, G. Segev), State of Israel and chair of the The Czamanski Commission concerning The Reorganization of the Electricity Industry in Israel (appointed by the late Prime Minister I. Rabin)

**The project resulted in The Electricity Law that was legislated in the Knesset, 1996**

- 1991-99      Member of the Board of Directors, Hat - Haifa Air Transport, Inc.
- 1990-92      Member of the Board of Directors, IV - Israel Ventures, Inc.
- Since 1987      Chairman of the Board of Directors, Czamanski Ben Shahar & Co. Ltd<sup>1</sup>
- 1981-82; 1984      Economist  
Settlement Study Centre, Rehovoth
- 1980-83      Member staff Sub-Committee on Economics  
National Association of Regulatory Utility Commissioners (NARUC), Washington, D.C.
- 1979-80; 1983      Principal Consultant  
Hurley, Schnauffer & Associates, Columbus, Ohio

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<sup>1</sup> The name of the firm changed several times: 1987-91 Matsag Applied Research; 1991-97 Czamanski Consultants; 1997 Czamanski & Co. Consultants and since 1998 Czamanski Ben Shahar & Co. Ltd.



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| 1979-80 | Consultant<br>Department of Economic and Community Development, State of Ohio,<br>Columbus, Ohio |
| 1978    | Consultant<br>Acumenics Research & Technology Inc., Bethesda, Maryland                           |
| 1976-80 | Member of a Policy Advisory Group<br>Public Utilities Commission of Ohio, Columbus, Ohio         |

### **Professional Consulting Projects in Applied Urban Economics**

In 1987 I established a real estate economics consulting firm that has become the leading consultancy in Israel. While during the first 10 years of its operations I supervised closely the technical aspects of the firm's activities, since 1997 I have not led any projects performed by the firm. I continue to serve as chairman of the firm's board of directors.

The firm provides consulting services to the leading real estate developers, chains of stores in the country, to government agencies and to municipal and regional authorities. To date, the firm's projects included feasibility and programming analyses of shopping centers, industrial parks and mixed-use projects. It prepared strategies for branch locations of stores, gasoline filling stations and banks and feasibility analyses of office buildings. It also performed strategic and sector plans for various cities and for the Tourism Ministry.

## **6. Publications**

### **Books**

1. Malkinson, D., D. Czamanski and I. Benenson (eds.). *Modeling of Land-Use and Ecological Dynamics*, Berlin, Springer International Publishers, 2014
2. Czamanski, D. *Privatization and Restructuring of Electricity Provision*, Westport, Prager, Greenwood Press, 1999
3. Czamanski, D. *The Cost of Preventive Services: The Case of Fire Services*, Lanham, Maryland, Lexington Books, D.C. Heath & Co., 1975

### **Refereed Journal Publications**

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1. Israel, E., Cohen, N., Czamanski, D., "Return on capital? determinants of counter-migration among early career Israeli STEM researchers" PLOS ONE 14(8): e0220609. <https://doi.org/10.1371/journal.pone.0220609>, 2019
2. Broitman, D., Griskin, V., Czamanski, D., "Unbundling negative and positive externalities of nature in cities: influence of wild animals on housing prices" *Urban Studies*, Vol. 56(13), 2019, pp. 2820-2836
3. Broitman, D., Czamanski, D., Malkinson, D. Cities and nature in *International Review of Environmental and Resource Economics*. 12, 2018, pp. 47-83
4. Natapov A., Czamanski D., Fisher-Gewirtzman D. A network approach to link visibility and urban activity location. Accepted for publication in *Networks and Spatial Economics*. 2018
5. Toger, M., Wang, Y., Benenson, I., Czamanski, D., Malkinson, D. Pigs in space: an agent-based model of wild boar (*Sus scrofa*) movement into cities. *Landscape and Urban Planning*. 173, 2018, pp. 70-80
6. Czamanski, D. and D. Broitman. The life-cycles of cities, *Habitat International*. 72, 2018, pp. 100-108
7. Czamanski, D., Broitman, D. Information and communication technology and the spatial evolution of mature cities. *Socio-Economic Planning Sciences*. 58, 2017, 30-38.
8. D., Czamanski, D., Toger, M. The Complex Interactions between Cities and Nature. in *Quality Innovation Prosperity*, 21.1, 2017, 88-101.
9. Natapov, A., D. Czamanski and D. Fisher-Gewirtzman. Visuospatial search in urban environment simulated by random walks in *International Journal of Design Creativity and Innovation* 4: 2, 2016, pp. 85-104
10. Toger, M., I. Benenson, D. Czamanski and D. Malkinson. The connectivity of the Haifa urban open space network in *Environment and Planning B*, 47, 2015, pp 1-23
11. Broitman, D. and D. Czamanski. Bursts and avalanches - the dynamics of polycentric urban evolution in *Environment and Planning B*, 42, 2015, pp. 58-75

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12. Cohen, N., D. Czamanski and A. Hefez. Internal migration and ethno-national minorities: The case of Arabs in Israel in *International Migration*, 53:6, 2015, pp. 74-88
13. Czamanski, D., D. Malkinson, D. and M. Toger. Nature in future cities - prospects and a planning agenda in *Built Environment*, 40:4, 2014, pp. 508-520
14. Natapov, A., D. Czamanski and D. Fisher-Gewirtzman. Can visibility predict location? Visibility graphs of food and drink facilities in the city in *Survey Review*, 45:333, 2013, pp. 462-471
15. Broitman, D. and D. Czamanski. Cities in competition, characteristic time and leapfrogging developers in *Environment and Planning B*, 39:6, 2012, pp. 1005-1118
16. Czamanski, D. and D. Broitman. Developers' choices under varying characteristic time and competition among municipalities in *Annals of Regional Science*, 49:3, 2012, pp. 733-743
17. Broitman, D. and D. Czamanski. Polycentric urban dynamics--heterogeneous developers under certain planning restrictions in *URISA - Journal of the Urban & Regional Information Systems Association*, 24:1, 2012, pp. 25-33
18. Marinov, M. and D. Czamanski. Normative issues in the organization of modern retails in Israel in *GeoJournal*, 77:3, 2012, pp. 383-398
19. Van der Vlist, A., D. Czamanski and H. Folmer. Immigration and metropolitan housing market dynamics - the case of Haifa in *Annals of Regional Science*, 47:3, 2011, pp. 585-598
20. Czamanski, D. and R. Roth. Characteristic time, developers' behavior and leapfrogging dynamics of high-rise buildings in *Annals of Regional Science*, 46:1, 2011, pp. 101-118
21. Marinov, M., L. Benguigui, and D. Czamanski. The evolution and distribution of the Israeli modern retailers in *GeoJournal*, 74:2, 2009, pp. 143-157
22. Blumenfeld, E., I. Aravot and D. Czamanski. Studying urban development in Tel Aviv based on its morphology alone in *Emergence: Complexity and Organization*, 11:1, 2009, pp. 35-48
23. Benchetrit, G. and D. Czamanski. Immigration and home ownership: government subsidies and wealth distribution effects in Israel in *Housing, Theory and Society*, 26:3, 2009, pp. 210-230
24. Benguigui, L., D. Czamanski and R. Roth. Modeling cities in 3D: a cellular automaton approach in *Environment and Planning B*, 35:3, 2008, pp. 413-430

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25. Czamanski, D., I. Benenson, D. Malkinson, M. Marinov, R. Roth and L. Wittenberg. Urban sprawl and ecosystems – can nature survive? in *International Review of Environmental and Resource Economics*, 2, 2008, pp. 321-366
26. Czamanski, D., P. Dormaar, M. Hinich and A. Serletis. Episodic nonlinearity and nonstationarity in Alberta's power and natural gas markets in *Energy Economics*, 29:1, 2007, pp. 94-104
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28. Benchetrit, G. and D. Czamanski. The gradual abolition of the public leasehold system in Israel and Canberra: What lessons can be learned? in *Land Use Policy*, 21:1, 2004, pp. 45-57
29. Benguigui, L. and D. Czamanski. Simulation analysis of the fractality of cities in *Geographical Analysis*, 36:1, 2004, pp. 69-84
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31. Benguigui, L., D. Czamanski and M. Marinov. Scaling and urban growth in *Journal of Modern Physics C*, 15:7, 2004, pp. 989-996
32. Benguigui, L., D. Czamanski and M. Marinov. The Dynamics of urban morphology: the case of Petah Tikvah in *Environment & Planning B*, 28, 2001, pp. 447-460
33. Benguigui, L., D. Czamanski and M. Marinov. City growth as a leap-frogging process: an application to the Tel Aviv metropolis in *Urban Studies*, 38:10, 2001, pp. 1819-1839
34. Benguigui, L., D. Czamanski, M. Marinov and Y. Portugali. When and where is a city fractal? in *Environment & Planning B*, 27, 2000, pp. 507-519
35. Mesch G. and D. Czamanski. Occupational closure and immigrant entrepreneurship: Russian Jews in Israel in *Journal of Socio-Economics*, 26 :6, 1997, pp. 597-610
36. Benchetrit, G. and D. Czamanski. The burden and equity of the general property tax on industry in Israel in *Economics Quarterly*, 41, 1994 pp. 78-98 (in Hebrew)
37. Carmon, N. and D. Czamanski. Housing in Israel: from planned economy to semi-free market management in *Housing Science*, 16:1, 1992, pp. 47-60

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38. Lifshits, G. and D. Czamanski. An Economic-Geographical Evaluation of the New Settlement Project in the Galilee in *Economics Quarterly*, 37, 1990 pp. 293-279 (in Hebrew)
39. Karni, E., D. Czamanski and M. Burt. Comparative evaluation of construction systems of light weight space structures in *International Journal of Space Structures*, 5:1, 1990 pp.29-37
40. Law-Yone, H., D. Czamanski and D. Gat. Computer aided planning: new tasks for the computer in *Simulation Games for Learning*, 18:1, 1988, pp. 102-107
41. Czamanski, D. The Effect of location subsidies on corporate decisions in *Regional Science and Urban Economics*, 17, 1987, pp. 411-421
42. Czamanski, D. and T. Taylor. Dynamic aspects of entrepreneurship in Arab settlements in Israel in *Geographic Horizons*, 17-18, 1986, pp. 125-144 (in Hebrew)
43. Meyer-Brodnitz, M. and D. Czamanski. The industrialization of Arab settlements in Israel in *Economics Quarterly*, 33, 1986, pp. 533-546 (in Hebrew)
44. Czamanski, D. and S. Fogel. Industrial location and the divorce of ownership from management in *Annals of Regional Science*, 19:1, 1985, pp. 77-86
45. Czamanski, D. Toward a positive theory of city and regional planning in *Sistemi Urbani*, 2, 1985, pp. 115-129
46. Czamanski, D. A contribution to the study of industrial location decisions in *Environment & Planning A*, 13, 1981, pp. 29-42
47. Czamanski, D. Some considerations concerning industrial location decisions in *European Journal of Operational Research*, 6:2, 1981, pp. 227-231
48. Czamanski, D. Cost control problems under rate-of-return regulation in *Modeling and Simulation*, 12, 1981, pp. 1236-1245
49. Czamanski, D. Toward an industrial policy in Ohio in *Bulletin of Business Research*, 65:9, 1980, pp. 5-12
50. Guldman, J.-M. and D. Czamanski. A simulation model of market expansion policies for natural gas distribution Utilities in *Energy*, 5, 1980, pp. 1013-1043
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53. Czamanski, D. and S. Czamanski. Industrial complexes: their typology, structure and relation to regional development in *Papers of the Regional Science Association*, 38, 1977, pp. 93-112
54. Czamanski, D. and P. S. Lande. Modeling optimal industrial complexes for regional growth in *Modeling and Simulation*, 6, 1975, pp. 1169-1174

#### **Other Short Papers**

1. Czamanski, D. Simulation in Regional Science – Complexity Research Lab: experimenting with cities in *The Newsletter of the Regional Science Association International*, new series 10, November 2013
2. Czamanski, D. and H. Folmer. Some new methods in Regional Science in *Annals of Regional Science*, 47:3, 2011, introduction to a special issue

#### **Refereed Publications in Conference Proceedings**

1. Timilsina, G., J. P. Prince, D. Czamanski and N. LeBlanc. Impact of crude oil production from Alberta's oil sands on the Canadian economy, *Proceedings of ECOMOD*, Sharm-al-Sheikh, 2005
2. Czamanski, D. Introduction, *Proceedings of the First Israel Regional Science Association Conference*, part of *Geographic Horizons*, 1987 (Hebrew)
3. Czamanski, D. Introduction, *Proceedings of the Second Biennial Regulatory Information Conference*, 1980
4. Czamanski, D. and J. M. Guldmann. Regulatory simulation model for gas distribution utilities *Proceedings of the First Biennial Regulatory Information Conference*, 1978

#### **Refereed Book Chapters**

1. Almagor, Y., I. Benenson and D. Czamanski. The evolution of the land development industry: an agent based simulation model in Behnisch, M. and G. Meinel (eds.) *Trends in Spatial Analysis and Modelling*, Berlin, Springer International Publishers, 2018

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1. Matthies, S., D. Kopel, S. Rüter, S., M. Toger, R. Prasse, D. Malkinson and D. Czamanski. Vascular Pplant species richness patterns in urban environments: case studies from Hannover, Germany and Haifa, Israel in Malkinson D., D. Czamanski and I. Benenson, (eds.) *Modeling of Land-Use and Ecological Dynamics*, Berlin, Springer International Publishers, 2014
5. Cohen, N., A. Hefetz and D. Czamanski. Internal migration of ethno-national minorities: the case of Arabs in Israel in Finney, N. and G. Catney (eds.) *Minority Internal Migration in Europe*, Farnham, UK, Ashgate, 2013
6. Mesch, G. and D. Czamanski. Occupational closure and immigrant entrepreneurship: Russian Jews in Israel in Samuel Y. and I. Harpaz (eds.) *Work and Organizations in Israel*. New Brunswick, N.J., Transaction Publishers, 2004
7. Czamanski, D. Industrial location under rate of return regulation and the separation of ownership from management in Dietz, F., W. Heijman and D. Shefer (eds.), *Location and Labor Considerations for Regional Development*, Farnham, UK, Avebury Press, Aldershot, 1991
8. Carmon, N. and D. Czamanski. Housing policy and practice in Israel in Willem Van Vliet (ed.), *International Handbook of Housing Policies and Practices*, New York, Greenwood Press, 1990
9. Czamanski, D. and M. Meyer-Brodnitz. Industrialization in Israel's Arab Villages in Bar-El, R. (ed.) *Rural Industrialization in Israel*, Boulder, Colorado, The Westview Press, 1986

### Technical Reports

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2. Jabareen, Y., Sh. Ismail, R. Halabi, H. Kittani, A. Sahly, S. Saadi, Y. Awad, D. Czamanski, N. Kasir, I. Telhami and I. Tamir. The Employment of Arabs in Israel: The Challenge of the Israel Economy in *18th Caesarea Economic Policy Planning Forum*, Jerusalem, The Israel Democracy Institute, 2010 (in Hebrew)

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1. Blumenfeld-Lieberthal, E., L. Benguigui and D. Czamanski. *Metropolis with No Borders in El Hama'ayan: The Yarkon Stream as a Cross Section in the Israeli Metropolis*, Tel Aviv Museum, 2005 (in Hebrew)
2. J. P. Prince and D. Czamanski. *World Energy: The Past and Possible Futures*, Calgary and Ottawa, The Canadian Energy Research Institute and the Canadian Nuclear Association, 2005
3. Ayres, M., B. Brereton, D. Czamanski and A. Penman. *Generation Capacity Issues in Deregulated Markets: A Canadian Perspective*, Calgary, Alberta: Canadian Energy Research Institute, March 2004
4. Arbel, M. and D. Czamanski. *Community Neighborhoods Next to Kibbutzim*, Tel-Aviv, Israel, Yad Tabenkin, 2001 (in Hebrew)
5. Gomelski N., D. Simmons-Cohen and D. Czamanski. *Entrepreneurial Theory and Practice: Immigrant Opportunities*. Haifa, Israel, S. Neaman Institute for Advanced Studies In Science And Technology, 1995 (Hebrew)
6. Trop T. and D. Czamanski. *The Willingness to Pay for the Use of Roads*, The Klutznick Center For Urban And Regional Studies, Haifa, Israel, Technion - Israel Institute of Technology, 1994 (in Hebrew)
7. Czamanski, D. *The Promotion of Arab Entrepreneurship*. Jerusalem, The Florsheimer Institute For Policy Studies, 1993
8. N. Carmon, H. Law-Yone, G. Lipshits, S. Amir, D. Czamanski and B. Kipnis. *The New Settlements In The Galilee - An Evaluation Study*, Haifa, Israel, Center for Urban & Regional Studies, Technion , 1990 (Hebrew)
9. Czamanski, D. Flexible Pricing of Natural Gas in the U.S.A. in J. S. Henderson (ed.), *Current Problems in the Regulation of Energy Utilities*, Columbus, Ohio, The National Regulatory Research Institute, The Ohio State University, 1988
10. Smith R., W. Jr., D. Czamanski and R. Strikwerda. Technological Change and the Issue of Social Justice in Robert Smith (ed.) *Technological Change in U.S.A., Japan and Germany*, Columbus, Ohio Batelle Memorial Institute, 1986, pp. 279-292



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11. Meyer-Brodnitz, M. and D. Czamanski. *A Strategy for the Development of the Arab Sector in Israel*. Tel Aviv, Koor Industries, 1985 (Hebrew)
12. Meyer-Brodnitz, M. and D. Czamanski. *Arabs in Region 2000*. Jerusalem and London, Nathaniel Lichfield & Partners, 1984
13. Czamanski, D and M. Meyer-Brodnitz. *The Economy of Region 2000 in the Year 2000*. Jerusalem and London, Nathaniel Lichfield & Partners, 1984
14. Czamanski, D., Raymond J. and R. Hamaisi. *Employment Potential of Israel's Arabs with College Degrees*. Haifa, Center for Urban & Regional Studies, Technion 1984 (Hebrew)
15. Czamanski, D. Some Urban Economics for Planners in *Manual for the AICP Exams*, Washington, D.C., American Planning Association, 1983
16. Mount-Campbell, C., D. Czamanski et al. *Some Issues Concerning the Pricing of Access to Local Telephone Service*. Columbus, Ohio, The National Regulatory Research Institute, 1983
17. Czamanski, D., M. Eger and L. Shinaan. *Factors Affecting Rural Industrialization in Israel*, Rehovoth, Settlement Study Centre, 1982
18. Profozich, R. J., D. Czamanski et al. *Electric Utility Time-of-Use and Interruptible Rate-Making and Power Pooling Issues in Colorado*. Columbus, Ohio, The National Regulatory Research Institute, 1982
19. Czamanski, D. and V. Khana. *A Test of Expense Preference under Rate of Return Regulation*. Columbus, Ohio, The National Regulatory Research Institute, 1981
20. Czamanski, D. and J. H. Henderson et al. *Regulation as a System of Incentives*, Columbus, Ohio, The National Regulatory Research Institute, 1980
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25. Czamanski, D. *The Implementation of a Target Industries Program in Ohio*. Columbus, Ohio, Department of Economic and Community Development, State of Ohio, 1980
26. Czamanski, D. and J. H. Henderson et al. *Regulation as a System of Incentives*, Columbus, Ohio, The National Regulatory Research Institute, 1980
27. Czamanski, D. and A. E. Hoffman. *User's Manual for the Massachusetts Electricity Analysis Package*, Columbus, Ohio, The National Regulatory Research Institute, 1979
28. Czamanski, D., A. G. Buckalew and K. A. McDermott. *Towards an Analysis of Telephone License Contracts and Measured Rates*. Columbus, Ohio, The National Regulatory Research Institute, 1979
29. Czamanski, D. and E. Snijders. *Extension of the Regulatory Simulation Model: Financial Analysis*. Columbus, Ohio, The National Regulatory Research Institute, 1979
30. Czamanski, D and S. Aggarwal. *Extension of the Regulatory Simulation Model: Consumption Analysis*. Columbus, Ohio, The National Regulatory Research Institute, 1979
31. Czamanski, D., R. Kurth, J. M. Guldman and E. Snijders. *A User's Manual for the Regulatory Simulation Model*. Columbus, Ohio, The National Regulatory Research Institute, 1979
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33. Czamanski, D. and J. M.I Guldmann. *The Allocation of Increasing Gas Supplies in Ohio*, Columbus, Ohio, The National Regulatory Research Institute, 1978
34. Czamanski, D., J. S. Henderson and K. A. Kelly. *The Benefits and Costs of Gas Storage Development in Ohio*, Columbus, Ohio, Public Utilities Commission of Ohio, 1977
35. Czamanski, D., K. A. Kelly and J. S. Henderson. *Ohio Energy Use, 1920-77*. Columbus, Ohio, Ohio Energy and Resource Development Agency, 1977
36. Czamanski, D., J. S. Henderson and K. A. Kelly. *Electricity Pricing Policies for Ohio*, Columbus, Ohio, Public Utilities Commission of Ohio, 1976
37. Czamanski, S. and D. Czamanski. *Study of Formation of Spatial Complexes*, Halifax, Canada, Dalhousie University, 1976
38. Czamanski, D. and S. I. Gordon. *Economic and Environmental Impacts of I-26 on New Albany, Indiana*. Albany, New Albany City Planning Commission, 1976
39. Czamanski, S. and D. Czamanski. *Study of Clustering of Industries*, , Halifax, Canada, Dalhousie University 1975
40. Czamanski, D. and P. S. Lande. *From the University of the Community: The Impact of University Capital Improvements on Ohio Communities*. Columbus, Ohio, Ohio Board of Regents, 1975
41. Riordan, C., G. Jacobs and D. Czamanski. *The Economic Impact of Locating a Nuclear Power Plant on Lake Cayuga*. Ithaca, NY, Center for Housing & Environmental Studies, Cornell University, 1971

### **Working Papers**

1. Timilsina, G., D. Czamanski and Prince, P. Renewable. Energy Technology in Canada: Current Status and Future Prospects in *CERI Working Papers on Energy, Environment and Economy*, 6, 2005
42. Benchetrit, G. and D. Czamanski. *Government Involvement in the Housing Market* The Klutznick Center For Urban And Regional Studies, Technion - Israel Institute Of Technology, 2002

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43. Czamanski D. and M. Marinov. *Towards An Infrastructure Policy Consensus and A National Capital Outlay Budget 2000-2010* Neaman Institute, Technion- Israel Institute Of Technology, 2001
44. Benguigui, L., M. Marinov and D. Czamanski. *City Growth as a Leap-Frogging Process: an Application to the Tel Aviv Metropolis* The Klutznick Center For Urban And Regional Studies, Technion - Israel Institute Of Technology, 1998
45. Simmons-Cohen D. and D. Czamanski. *The Effectiveness of Small Firm Support: An Israeli Case Study* The Klutznick Center For Urban And Regional Studies, Technion - Israel Institute Of Technology, 1995
46. Ben-Shahar T. and D. Czamanski. *The Potential for Privatization of Municipal Services* The Klutznick Center For Urban And Regional Studies, Technion - Israel Institute Of Technology, 1994
47. Benchetrit, G. and D. Czamanski. *The Burden and Equity of the General Property Tax on Industry in Israel* The Klutznick Center For Urban And Regional Studies, Technion - Israel Institute Of Technology, 1993
48. Bahat, S. and D. Czamanski. *Factors That Promote and Delay Entrepreneurship in Development Towns In Israel* The Klutznick Center For Urban And Regional Studies, Technion - Israel Institute Of Technology, 1993
49. Czamanski D. and T. Taylor. *Some Spatial Aspects of Entrepreneurship and Development* The Klutznick Center For Urban And Regional Studies, Technion - Israel Institute Of Technology, 1993
50. Carmon, N. and D. Czamanski. *Housing in Israel: From Planned Economy to Semi-Free-Market Management* The Klutznick Center for Urban and Regional Studies, Technion - Israel Institute Of Technology, 1990
51. Henderson, S. J. and D. Czamanski. *Rate of Return Regulation of Expense Preference Managers* Working Paper No. 60, Economics Dept., The Ohio State University, 1984
52. Czamanski, D., M. Eger and L. Shinaan. *Toward an Analysis of Rural Industrialization* Rehovoth, Settlement Study Centre, 1984

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53. Czamanski, D. *A Test of an Economic Theory of Regulation* Center for Urban & Regional Studies, Technion, 1981

## **7. Conferences**

### **Plenary/Invited Talks**

- 2005 Visionary speaker, Oil prices and the nuclear option  
Asian Nuclear Power Conference, Hong Kong
- 2005 Key note speaker, Base-load generation options for Ontario  
Annual Electricity Conference, Canadian Energy Research Institute, Calgary, Canada
- 2004 Key note speaker, A new cross-Canada transmission option  
Annual Electricity Conference, Canadian Energy Research Institute, Calgary, Canada

### **Organization**

Since 1989 I served as member of program or scientific committee of the following international conferences:

- 2013 European Regional Science Congress, Italy
- 2013 North American Regional Science Congress, Atlanta
- 2013 the American Real Estate and Urban Economics Association, Jerusalem
- 2012 the International Symposium on CA Modeling for Urban and Spatial Systems, Portugal
- 2012 Cities and Nature, an international workshop, Haifa
- 2010 International Geographical Union, Commission on Modeling Geographical Systems, Tel Aviv
- 2010 European Regional Science Congress, Sweden
- 2010 International conference, Public Life in the In-Between-City, Haifa
- 2009 European Regional Science Congress, Lodz, Poland
- 2009 3rd International Cartographic Association Workshop, Tel Aviv
- 2007 European Regional Science Congress, Paris
- 2006 European Regional Science Congress, Liverpool, UK
- 2006 Dutch-Israel Regional Science workshop, Jerusalem
- 2005 International Conference on Energy, Environment and Disasters, Charlotte, NC

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- 1991 the Israeli and English Regional Science Associations workshop, Shefaiim  
1989 3rd World Congress of the International Regional Science Association, Jerusalem

## **8. Service**

### **To the Faculty**

Since 1983 I was a member of various committees on an annual basis and chair of the following committees:

- 2010-12 Balaban - Glas Research Awards  
2010 Graduate Program in Industrial Design  
2007-09 P. K. Hoenich Gallery,  
1992 Graduate Program in City and Regional Planning  
1992; since 2010 Scholarship Committee  
1990-91 Prizes Committee  
1986-87; 94-96; 98-00 Klutznick Center for Urban & Regional Research

### **To the University**

- 2011-12 Representative  
Technion Faculty Organization  
  
2010-12 Judge  
Technion Faculty Disciplinary Court  
  
2006; 2001-02 Representative of the Faculty of Architecture & T.P. in  
Technion Senate  
  
1992-94 Chief Executive Officer  
Technion Land Development Inc.

### **To Government Agencies**

- 2012-13 Chair  
Israel Council for Higher Education,  
Committee to Evaluate a New MA Program in Real Estate at  
Interdisciplinary Center (IDC) Herzliya

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- 2012-13      Member  
Israel Council for Higher Education,  
Committee to Evaluate a New MA Program in Real Estate at Netanya College
- 2010-12      Chairman, evaluation committee of the geography, regional science and  
planning section proposals, social sciences and the humanities  
Israel Science Foundation
- 1996-03      Deputy Representative of the Technion  
The National Planning Board
- 1994-96      Representative of the State of Israel  
The National Association of Regulatory Utility Commissioners
- 1997-98      Member of Professional Committee  
Sustainable Energy Policies, Israel Ministry of Environmental Quality
- 1991-94      Chairman of the Public Committee to Determine the Municipal Boundaries  
of Arabe (appointed by the Interior Minister)
- 1989-90      Chairman of the Public Committee to Determine the Municipal Boundaries  
of Tiberias (*appointed by the Interior Minister*)

**To the Public**

- 2010-15      Member of the Board of Trustees, member of the academic committee and  
of the academic steering committee  
Western Galilee College
- Since 2008      Founding member  
Israeli-Palestinian Chamber of Commerce
- 2007-10      Co-founding director of an NGO  
Carmel Center for Contemporary Art and Gallery
- 2005-11      Project director and senior fellow, Economic Cooperation Foundation  
(*economic cooperation with the Palestinian Authority, under auspices of the  
Defense Ministry*)

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- 2005-06      Member of team  
The future structure of the Palestinian economy and its relation to Israel  
discussions with Palestinians, representatives of the EU, the USA  
government
- 1999-09      Head of Cooperation North project  
EU funded cross-border cooperative effort of the Palestinian Authority  
and Israel  
*(economic cooperation with the Palestinian Authority, under auspices of the  
Ministry Defense)*
- 1995-2010    Member of the Board of Directors, Haifa Branch  
Member of the National Public Board  
Junior Achievement of Israel
- 1994-96      Member of Haifa Mayor's Economic Advisory Committee
- 1992-10      Member of Steering Committee, coordinator of the Economics  
Subcommittee  
Deputy chairman and member of the Founders Committee  
Co-director, Teens For Tzedek project  
Boston Jewish Community - Haifa Partnership
- 1991-06      Chairman of the Board of Directors  
Member of the Board of Directors  
Haifa Center for the Promotion of Entrepreneurship (MATI)
- 1991          Member  
Joint committee to improve the functioning of downtown Haifa  
Haifa Chamber of Commerce and the Faculty of Architecture and T.P.
- 1991-94      Chairman  
Public Committee to Determine the Municipal Boundaries of Arabe  
*(appointed by the Interior Minister)*
- 1989-95      Founder and Chairman  
Pro Haifa, a non-profit public service corporation



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- |         |   |
|---------|---|
| 1990-91 | Member of the Haifa Mayor's Council on the City's Commercial Infrastructure                                   |
| 1989-91 | Member of the Haifa Mayor's Public Committee on the Local Property Tax  |
| 1987-88 | Member<br>Jewish Federation Mission from San Francisco to Kiryat Shmona<br>the Economic Development Committee |
| 1983-89 | Member and chairman of the Land-Use Plan Committee<br>The Society for Beautiful Israel, Haifa Branch          |

## **9. Honors and Awards**

- |      |   |
|------|---|
| 2001 | Award of special contribution to the Haifa Center for the Promotion of Entrepreneurship - JDC - Israel          |
| 2001 | Founding members' award - MATI Haifa  |
| 1983 | First Award of Outstanding Contribution - the National Regulatory Research Institute, the Ohio State University |

## **10. Memberships in Professional Organizations**

- |                |   |
|----------------|---|
| Since 1971     | Regional Science Association International  |
| 2012-14        | Member of the Council (councilor-at-large)  |
| 2013-15        | Member of the finance and budget committee  |
| Since 2008     | Commission on Modeling Geographical Systems of the International Geographical Union |
| 1998-2010      | Israel Economics Association  |
| 1979-81; 03-07 | International Energy Economists Association   |
| 1979-80        | American Association for the Advancement of Science                                 |
| Since 1985     | Israel Geographic Association   |

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Since 1985     Israel Environmental Association

Since 1985     Israel Regional Science Association (founding member & member of  
Steering Committee, Secretary 1992-2004)

1972-1992     American Economic Association