

HIT - HOLON INSTITUTE OF TECHNOLOGY

Date: 06 December 2020

Name EYAL BRILL Ph.D. 55860225
(first) (last) (acad. degree) No. id. Card

Faculty Technology Management **Department** _____

Home Address 19/8 Ayalon Street, Shoam, 73142 **Phone No.** 03-9711623 054-4531209
(home) (work) (mobile)

Date/place of birth 26/03/1959 Israel **Date of arrival in Israel** -
(date) (country)

ZAHAL, (Israeli) Military Service 1977 - 1981
dates (enlisted) (discharged)

Marital Status Married **No. of children** 2

Email: eyalb@hit.ac.il

EDUCATION

Period of Study (dates)	Name of University (including city and country if not in Israel)	Subject	Degree or Professional Licence	Date of Award
1984-1989	College for Management	IT Management	B.A.	1989
1989-1992	Hebrew University	Ag. Economics	M.Sc.	1992
1993-1996	Hebrew University	Ag. Economics	Ph.D.	1996

Title of Master's Thesis: A Model for Optimization of the Dairy Industry Production Function

Name of Supervisors: Prof. Eithan Hochman

Title of Doctoral Dissertation: Applicability and Efficiency of Market Mechanisms for Allocation of Water with Bargaining

Names of Supervisors: Prof. Eithan Hochman

B. FURTHER STUDIES

Period of Study (dates)	Name of University (including city and country if not in Israel)	Subject	Degree or Professional Licence	Date of Award
1996-1997	University of Maryland at College Park, USA	Natural Resources	Post Doctorate	1997

C. ACADEMIC AND PROFESSIONAL EXPERIENCE**Academic:**

Period (dates)	Name of Institution (city, country)	Department	Rank/Function
1998-1999	Ben-Gurion University of the Negev, Beer-Sheva, Israel	Economics	Lecturer
1998-2008	Hebrew University, Jerusalem, Israel	Agr. Economics	Lecturer
2007-present	HIT – Holon Institute of Technology, Holon, Israel	Technology Management	
	Rank:		
2007-2009	Adjunct Lecturer		
2009-present	Equivalent to Senior Lecturer		
1/4/2015-present	Lecturer		
	Function:		
2013-2014	Deputy Head of B.Sc. program in Management of Technology		
2014-present	Head of B.Sc. program in Technology Management		
2014-2020	Head: Teaching Committee; Head: Curriculum Committee		
2020	Senior lecturer (pro)		
2020 –	Dean deputy Faculty of Management of technology		

Professional:

Period (dates)	Name of Institution (city, country)	Department	Rank/Function
1981-1994	Tnuva Ltd., Israel	Engineering	Programmer
1998-2001	SpecSoft Ltd., Israel ^❶		Co-Founder
2001-2003	Insyst Ltd., Israel ^❷	Research & Development	R&D Manager
2003-2008	Insyst Ltd., Israel ^❸		COO
2008-2009	Menolinx Ltd., Israel	Research & Development	CTO
2008-2013	White Water Ltd. ^❹	Research & Development	EDS Chief Developer
2009-present	Decision Makers Ltd. ^❺		Owner

❶ Hi-tec start-up developed unique software for automatic code generation for PLC.

- ② The company developed software for machine learning application in Industrial Control
- ③ Insyst Ltd. engaged in the field of APC (Advanced Process Control)
- ④ Water engineering company
- ⑤ Currently develops the Mindset-Detector. Water Quality Event Detection System

Relevant Experience:

- Optimization of multi-input multi output-function (Theory and practice)
- 25 years' experience in Machine learning and models building using most common algorithms (including teaching these subjects in academic classes)
- Over 20 year's experience in development of commercial application using database systems and internet technology
- Managing four projects funded by the Israeli Chief Scientist with total budget of more than 25M NIS
- Managing development team of 20-30 technical staff, including developers, algorithm team, QA team and implementation/engineering team
- Development of machine learning software for water quality event detection events
- Leading international ISO group for development of ISO standard in the field of water quality event detection
- Managing 4 OCS projects with a total budget of over 15 MNIS

D. PROFESSIONAL AND PUBLIC ACTIVITIES

Period (dates)	Name of Institution/Conference/ Journal/Exhibitions/Projects (city, country)	Occasion
2012	ISO Committee 224 – The Standard Institution of Israel	Chairman of working group 9: Water quality event detection process – Guidelines for water and wastewater utilities
2019	International Organization for Standardization, ISO/TS 24522 (ISO/TC 224 N998)	Main Editor of ISO Standard: Water quality event detection process: Guidelines for water and wastewater utilities, February 2019

**E. ACADEMIC AND PROFESSIONAL AWARDS
(prizes, fellowships, scholarships, etc.)**

Year	Name of Institution (city, country)	Occasion
2000	Hebrew University, Jerusalem, Israel	Faculty – Excellent teaching award
2001	Hebrew University, Jerusalem, Israel	Rector – Excellent teaching award
2006	Hebrew University, Jerusalem, Israel	Ranked as first teacher in Ag Eco department students' survey
2015-2016	HIT – Holon Institute of Technology, Holon, Israel	Award for excellence in academia

Name: Eyal Brill, Ph.D.

Holon Institute of Technology
Date: 6 December 2020

E. RESEARCH GRANTS

Year	Name of Institution (city, country)	Occasion/Amount
2019-2021	Israeli Ministry of Science & Technology, Research in Engineering and Applied Sciences	Grant – Empowering big data- driven farming Cooperating Investigator – 3 years Total budget: \$321,000

F. MEMBERSHIP IN PROFESSIONAL SOCIETIES

Year	Society (country)
	NONE

G. STUDENTS SUPERVISED BY CANDIDATE

HIT – Holon Institute of Technology does not currently have an accreditation for granting research theses (M.Sc.) or Dissertation(Ph.D.) degrees

G1. DOCTORAL STUDENTS

Year	Name of Student	Title of Thesis	Name of Academic Institution
		NONE	

G2. M.A./M.Sc. STUDENTS *(please indicate if degree is with "thesis" or "final project")*

Year	Name of Student	Title of Project	Name of Academic Institution
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Dr. Eyal Brill has supervised 32 students' final projects at HIT

PUBLICATIONS

C. REFEREED ARTICLES

1. E. Brill, E. Hochman, D. Zilberman
Allocation and pricing at the water district level
American J. Agricultural Economics, 79, 1997 (952-963)
Q1 - SJR
2. א. בריל, ג. הוכמן, א. הוכמן
היבטים של הפרטת משק מים אזורי
רבעון לכלכלה, 44(2), 1997 (241-262)
2. E. Brill, G. Hochman, E. Hochman
Aspects of privatization of a water region
The Economic Quarterly, 44(2), 1997 (241-262)
3. A. Gonen, E. Brill, M. Frank
Learning through business games – An analysis of successes and failures
On the Horizon, 17(4), 2009 (356-367)
Q4 – SJR
4. E. Brill, J. Sack
Water contamination detection – Methodology and empirical results
EnviroGeoChemica Acta J. (EGCA)
Special Issue, 6, 2014 (390-396)
[presented at IPN – Israel Water Week (I^2W^2), Mexico City, Mexico, 17-19 September 2014]

5. D. Giterman, E. Brill
Proposal and examination of the FLAP algorithm
Int'l. J. of Business Intelligence and Data Mining, 13(1/2/3), 2018 (267-290)
Q3 - SJR
6. B. Amit, E. Brill
New approach for estimation of detention time and prediction of quality in water networks
Water Quality Research J., 53(2), 2018 (72-85)
Q2 – SJR
7. E. Brill, A. Binstock
A methodology for E-mail based detection of employee behavior change
J. of Business and Economic Management, 6(3), 2018 (38-44)
Q2 – SJR

D. CHAPTERS IN BOOKS

1. E. Hochman, E. Brill
Homogeneity and heterogeneity of bio-resources in economic models
In: "Modern Agriculture and the Environment"
D. Rosen, E. Tal-Or, Y. Hadar, Y. Chen (eds.)
The Hebrew University of Jerusalem
Great Britain: Kluwer Academic Publishers, 1997 (567-582)
 2. E. Brill, G. Hochman, E. Hochman
Privatization and regulation of multi-source water usage
In: "Conflict and Cooperation on Trans-Boundary Water Resources"
R.E. Just, S. Netanyahu (eds.)
Kluwer Academic Publishers, 1998 (249-266)
 3. E. Brill, U. Chakravorty, E. Hochman
Trans-boundary water allocation between Israel and the Gaza Strip:
Desalination, recycling, and fresh water
In: "Conflict and Cooperation on Trans-boundary Water Resources"
R. Just, S. Netanyahu (eds.)
Boston: Kluwer Academic Publishers, 1998 (381-400)
 4. E. Brill, E. Hochman, D. Zilberman
Allocation and pricing at the water district level
In: "Economics of Water Resources", Volume II
R. Quentin Grafton (ed.)
Edward Elgar Publishing, 2009, Part IV, Ch.27 (385-396)
 5. E. Brill
Implementing machine learning algorithms for water quality event detection:
Theory and practice
In: *Securing Water and Wastewater Systems*
Series: Protecting Critical Infrastructure
Robert M. Clark, Simon Hakim (eds.)
Springer, 2, 2014 (107-122)
[ISBN: 978-3-319-01091-5]
-
6. E. Brill, B. Brill
Identifying water network anomalies using multi parameters random walk:
Theory and practice
In: *Applications in Water Systems Management and Modeling*
Daniela Malcangio (ed.)
IntechOpen, Chapter 3, 2018 (33-47)
[ISBN: 978-1-78923-045-1]
<http://dx.doi.org/10.5772/intechopen.71566>

Submitted for publication:

1. E. Brill
Using radial basis function for water quality events classification
In: *ICT for Smart Water Systems: Measurements and Data Science*
The Handbook of Environmental Chemistry 698, September 2019

[in final (minor) second review – anticipated to be expected and included in the book]

E. PAPERS PRESENTED AT SCIENTIFIC MEETINGS PUBLISHED IN PROCEEDINGS

1. E. Hochman, E. Brill
Fish production in a super-intensive controlled system in the Israeli desert
Socioeconomics of Aquaculture. Tungkang Marine Laboratory (TML) Conf. Proc.
Y.C. Shang, P.S. Leung, C.S. Lee, M.S. Su, and I.C. Liao (eds.)
1994 (281-295)
2. E. Brill, E. Hochman
Allocation of common resources with political bargaining
Security and Sustainability in a Mature Water Economy – A Global Perspective
Water and Resource Economics Consortium, Center for Water Policy Research
J.J. Pigram (ed.) University of New England
Armidale, Australia, 1996 (183-211)
3. U. Chakravorty, E. Brill, E. Hochman
Allocation of water among agricultural and urban users in Israel
Security and Sustainability in a Mature Water Economy – A Global Perspective
Water and Resource Economics Consortium, Center for Water Policy Research
J.J. Pigram (ed.) University of New England
Armidale, Australia, 1996 (407-420)
4. E. Hochman, E. Brill
Israeli water economy: Reform vs. reality
Proc. 4th Water and Resources Economics consortium
Melbourne, Australia, 13-16 Feb. 1996 (11-42)
5. E. Brill
PLC based recipes
7th North American World Batch Forum Conf.
Atlantic City, USA, Apr. 2000
6. E. Brill, O. Yulevitch
Targeting batch outcome using predictive control
9th European World Batch Forum North American Conf.
New Jersey, USA, 13-16 Apr. 2003
7. E. Brill
Modeling batch processes using virtual variables
3rd European World Batch Forum European Conf.
Mechelen, Brussels, 11-13 Oct. 2004
8. A. Gonen, E. Brill
On-line training for improvement of business decisions
38th Annual Conf. "Teaching and Learning through Gaming and Simulation" (Sagset 2008)
Nottingham, UK, 17-18 July 2008
9. E. Brill, A. Gonen, E. Fligel, E. Goldstein
Empirical results about the Nash-Cournot equilibrium

IEEE Int'l. Conf. on Industrial Engineering and Engineering Management (IEEM 2009)
Hong Kong, 8-11 December 2009

10. A. Gonen, E. Brill

The world of business games

Portland Int'l. Center for Management of Engineering and Technology (PICMET '14) Conf.

Japan Chapter: "Infrastructure and Service Integration"

Kanazawa, Japan, 27-31 July 2014

11. M. Green, E. Brill

Managing the grid while optimizing revenue from small PV systems

Proc. 19th Sede Boqer Sym. on Solar Electricity Production

Beer Sheva, Israel, 23-25 February 2015

12. א. בריל, א. בינסטוק

זיהוי התנהגות חריגה של עובדים בעזרת ניתוח הודעות מייל

הכינוס ה-19 להנדסת תעשייה וניהול – יתרון יחסי בעידן של תחרות גלובלית

תל אביב, ישראל, 24/2/2015

12. E. Brill, A. Binstock

Detecting employee's abnormalities behavior using mail meta data monitoring

Proc. 19th Industrial Engineering and Management Conf. (IE&M)

Competitive Advantage in the Era of Global Competition

Tel-Aviv, Israel, 24 February 2015

13. E. Santamaria, J. Moßgraber, E. Brill, I.M. Arango

A system architecture for the detection and mitigation of CBRN related
contamination events of drinking water

Proc. 13th Int'l. Conf. on Computing and Control for the Water Industry (CCWI 2015):

Sharing the Best Practice in Water Management, Leicester, UK, 2-4 September 2015

Procedia Engineering Series, 119, 2015 (319-327)

14. T. Bernard, J. Moßgraber, A.E. Madar, A. Rosenberg, J. Deuerlein, H. Lucas,

K. Boudergui, D. Ilver, E. Brill, N. Ulitzur

Safewater – Innovative tools for the detection and mitigation of CBRN related
contamination events of drinking water

Proc. 13th Int'l. Conf. on Computing and Control for the Water Industry (CCWI 2015):

Sharing the Best Practice in Water Management, Leicester, UK, 2-4 September 2015

Procedia Engineering Series, 119, 2015 (352-359)

15. T. Bernard, J. Moßgraber, A.E. Madar, A. Rosenberg, J. Deuerlein, H. Lucas,

K. Boudergui, Dag Ilver, E. Brill, N. Ulitzur

Realtime detection and mitigation of CBRN related contamination events of drinking water

10th Future Security Research Conf.

Berlin, Germany, 15-17 September 2015

16. B. Brill, E. Brill

Extensions of cross correlation for delay time estimation

with application to water networks

Proc. Industrial Engineering & Management Conf. (IE&M)

Tel-Aviv, Israel, 4 June 2017

F. PAPERS PRESENTED AT SCIENTIFIC MEETINGS (UNPUBLISHED)

- 1993 International Symposium of Socio-Economics of Aquaculture, Taiwan, 14-17 December 1993
- 1994 Modern Agriculture and the Environment, Hebrew University, Rehovot, Israel, October 1994
- 1997 Symposium of the International Water and Resource Economics Consortium, Annapolis, Maryland, USA, April 1997
- 2006 4th European World Batch Forum Conference, Mechelen, Belgium October 2006
- 2008 Serious Games Symposium (SGS) 2008 – Games and Virtual Worlds for Learning and Training, Israel, 5 March 2008
Oral presentation: *Decision makers: Internet based didactic and research simulator* (with A. Gonen)
- 2008 Portland International Center for Management of Engineering and Technology (PICMET '08) Conference, Cape Town, South Africa, 27-31 July 2008
Tutorial: *Business game for research* (with A. Gonen)
- 2014 IPN – Israel Water Week (I²W²), Mexico City, Mexico, 17-19 September 2014
Oral presentation: *Water contamination detection – Methodology and empirical results*
(E. Brill, J. Sack)

G. OTHER PUBLICATIONS**G1. PATENTS**

1. J. Hartman, O. Yulevitch, E. Brill
Method for dynamically targeting a batch process
Publication No. US 2003/0220709 A1, Publication date: 27 November 2003
2. J. Hartman, O. Yulevitch, E. Brill
Method for dynamically targeting a batch process
Patent No. 7123978, Date of patent: 17 October 2006
3. J. Hartman, E. Brill, Y. Kokotov
Apparatus and method for the analysis of a process having parameter-based faults
Patent No. 20070156620, Publication date: 5 July 2007
4. J. Hartman, E. Brill, Y. Kokotov
Apparatus and method for the analysis of a process having parameter-based faults
Patent No. 7536371, Publication date: 19 May 2009
5. J. Hartman, E. Brill, Y. Kokotov
Apparatus and method for the analysis of a process having parameter-based faults
Patent No. 20090265295, Date of Patent: 22 October 2009
6. J. Hartman, E. Brill, Y. Kokotov
Apparatus and method for the analysis of a process having parameter-based faults
Patent No. 7805394, Date of Patent: 28 September 2010

G. OTHER PUBLICATIONS, contd.

G1. PATENTS

7. E. Brill
System and method for detecting abnormal occurrences
Publication No. US 2014/0058705 A1, Publication date: 27 February 2014
-

Provisional application:

1. E. Brill
Dynamic Brownian motion with density superposition for abnormality detection
Patent application no. 20150205856, Publication date: 23 July 2015

G. OTHER PUBLICATIONS

G2. REPORTS

1. E Brill
Virtual sensor model specifications
Deliverable D3.1. SAFEWATER project
A classified EU project, Contract Number: 312764, 2014
 2. E. Brill, B. Brill
Event detection system training tool
Deliverable D4.7. SAFEWATER project
A classified EU project, Contract Number: 312764, 2014
-

3. E. Brill, B. Brill
Virtual sensor model release
Deliverable D3.2. SAFEWATER project
A classified EU project, Contract Number: 312764, 2015

4. E. Brill, B. Brill
Abnormality spatial model
Deliverable D3.4. SAFEWATER project
A classified EU project, Contract Number: 312764, 2015

5. E. Brill, B. Brill
Optimal sensors combination ranking
Deliverable D3.7. SAFEWATER project
A classified EU project, Contract Number: 312764, 2015

6. E. Brill, B. Jones, J. Dore
Improving efficiency of PV systems using statistical performance monitoring
Photovoltaic Power Systems Programme
Report IEA-PVPS T13-07: 2017 Subtask 2
[ISBN: 978-3-906042-48-0]