

CURRICULUM VITAE AND LIST OF PUBLICATIONS**Personal Details**

Name Yossef Hodara Hatzor
 Date and place of birth September 17, 1959, Tel-Aviv, Israel
 Regular military service November 1977 - November 1980
 University Address Department of Geological and Environmental Sciences,
 Ben-Gurion, University of the Negev, P.O. Box 653,
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**Education**

Ph. D. Advisor Thesis	1990 - 1992	Dept. of Civil Engineering, University of California, Berkeley Prof. R. E. Goodman Validation of Block Theory using Field Case Histories
M. S. Advisor Thesis	1988 - 1990	Dept. of Civil Engineering, University of California, Berkeley Prof. R. E. Goodman The Influence of Geological Structure on the Engineering of Underground Openings in Discontinuous Rock Masses
M. Sc. (Cum Laude) Advisors Thesis	1985-1988	Dept. of Geology, Hebrew University of Jerusalem Prof. A. Starinski; Prof. Z. Reches; Dr. Y. Mimran The Geology of the Gilboa' Region
B. Sc.	1982-1985	Dept. of Geology, Hebrew University of Jerusalem

Employment History

1/2012 – 12/2018	Visiting Professor of the Chinese Academy of Sciences, Institute of Soil and Rock Mechanics, National Key Laboratory of Geomechanics and Geotechnical Engineering, Wuhan, China
10/10 - Present	Professor, BGU, Beer-Sheva, Israel
11/09	Visiting Professor, School of Civil and Environmental Engineering, Nanyang Technical University, Singapore
2/08	Visiting Professor, Department of Geological Engineering, Montana Tech., The University of Montana, Butte, Montana, USA
10/04	Associate Professor, BGU
7/00 – 3/01	Visiting Associate Professor, Department of Civil and Environmental Engineering, University of California, Berkeley, CA., USA
11/98	Tenure, BGU
4/98	Senior Lecturer, BGU
9/92	Lecturer, BGU, Beer-Sheva, Israel
7/92 - 8/92	Visiting Scientist, TerraTek Research Lab, Salt Lake City, Utah, USA
5/89 - 6/92	Teaching and Research Assistant, Department of Civil Engineering, Geotechnical Engineering, University of California, Berkeley, CA., USA
10/85 - 7/88	Research Fellow, Mapping Division, Geological Survey of Israel, Jerusalem, Israel
10/85 - 6/87	Teaching Assistant, Department of Geology, Hebrew University, Jerusalem, Israel

Professional Activities(a) Academic and administrative positions held at BGU

2013 – Present, Chair, Dept. of Geological and Environmental Sciences

1995 – Present, Director, Deichmann Rock Mechanics Laboratory

1993 – Present, Director, Academic Program in Engineering Geology

(b) Professional functions outside the University*International Committees, Boards, and Commissions*

2017	Intl. Scientific Committee	15 th International Conference of the International Association for Computer Methods and Advances in Geomechanics (15th IACMAG), October 19-23, 2017, Wuhan, China.
2016	Intl. Scientific Committee	EUROCK2016, Cappadocia (Ürgüp), Turkey, August 29 - 31, 2016.
2016	Advisory and Organizing Committee	The 1 st International Symposium on Reducing Risks in Site Investigation, Modelling and Construction for Rock Engineering (GEOSAFE2016). Xi'an, China 25-27 May, 2016.
2015	Intl. Scientific Committee	12 th International Conference on Analysis of Discontinuous Deformation (ICADD-11), Wuhan, China, October 16 - 19, 2015.
2015	Session Developer	49 th U. S. Rock Mechanics Symposium, San Francisco, CA. June 28 – July 1, 2015.
2013	Intl. Scientific Committee	11 th International Conference on Analysis of Discontinuous Deformation (ICADD-11), Fukuoka, Japan, August 27 - 29, 2013.
2011 - 2019	Co-President	ISRM Commission on Discontinuous Deformation Analysis
2012 – 2015	Member	ISRM Commission on Preservation of Ancient Sites
2011	Intl. Scientific Committee	12 th Congress of the International Society for Rock Mechanics (ISRM), Beijing, China, October 2011.
2010	Intl. Advisory Board	6 th Asian Rock Mechanics Symposium, New Delhi, India, October 2010.
2009	International Advisory Committee	9 th International Conference on Analysis of Discontinuous Deformation (ICADD-9), Singapore, November 25 - 27, 2009.
2009	International Advisory Committee	3 rd US-Canada Rock Mechanics Symposium, Toronto, Canada, May 9 – 14, 2009.
2009	Chair	Batsheva Seminar on Shear Physics at the Meso-Scale in Earthquake and Landslide Mechanics. Ein-Gedi, Israel. January 26 – 30, 2009. Sponsored by Israel Academy of Sciences and Humanities.
2008	Intl. Scientific Committee	International Symposium on Conservation of Ancient Sites, Dunhuang, China, October 8-12, 2008.
2008	Session Developer	42 nd U.S. Rock Mechanics Symposium and 2 nd U.S.-Canada Rock Mechanics Symposium, San Francisco, CA. June 29 - July 2, 2008.
2008	Paper Review Committee	6 th International Conference on Case histories in Geotechnical Engineering. Arlington, VA. August 11-16, 2008.
2007	Intl. Advisory Board	1 st Sri Lankan Geotechnical Society International Conference on Soil and Rock Engineering, Colombo, Sri Lanka, August 7-11, 2007.

2007	Intl. Scientific Committee	11 th Congress of the International Society for Rock Mechanics (ISRM): International Workshop on Preservation of Natural Stone Monuments and Rock Weathering, Madrid, Spain, July 12 – 15, 2007.
2006	Intl. Advisory Board	4 th Asian Rock Mechanics Symposium (ARMS 2006), Singapore, November 8 – 10, 2006
2005	Intl. Organizing Committee	7 th International Conference on Analysis of Discontinuous Deformation (ICADD-7), Honolulu, Hawaii, December 10-12, 2005.
2005	Intl. Scientific Committee	International Symposium on Advances in Mining Technology and Management, Indian Institute of Technology, Kharagpur, India.
2004	Intl. Advisory Committee	3 rd Asian Rock Mechanics Symposium (ARMS2004) Kyoto, Japan, Nov. 30 – Dec. 2, 2004.
2004	Intl. Scientific Committee	6 th International Symposium on the Conservation of Monuments in the Mediterranean Basin. Lisbon, Portugal.
2003	Intl. Advisory Panel	6 th International Conference on Analysis of Discontinuous Deformation (ICADD-6), Trondheim, Norway, October 5 – 8, 2003.
2002	Chair	5 th International Conference on Analysis of Discontinuous Deformation (ICADD-5), Wuhan, China, October 6 – 10, 2002.
2000-6	Member	International Society for Rock Mechanics (ISRM) Commission on Preservation of Natural Stone Monuments.
1999	Int. Advisory Committee	3 rd International Conference on Analysis of Discontinuous Deformation (ICADD-3), Vail, Colorado, June 3-4, 1999.
1996	Int. Technical Committee	1 st International Forum on Discontinuous Deformation Analysis, Berkeley, California, June 12-14, 1996.

National Committees and Roles

2012	Professional committee	Israel Prize in Earth and Atmospheric Sciences
2011 - 2015	Professional sub-committee	National Higher Education Committee (MALAG): Evaluation of B.A. program in Conservation Studies, West Galilee College.
2011	Professional committee	Prof. Rahamimoff Travel Grants Program, US- Israel Binational Science Foundation.
2007 – 2010	Professional sub-committee	The Standards Institution of Israel (SII): SI-1665 Part 2 - Anchorages for soil and rock.
2005 – 2007	Professional sub-committee	The Standards Institution of Israel (SII): SI-5620 - Geological Mapping for Underground Openings.
2005 - 2006	Professional sub-committee	Israel Science Foundation (ISF): Earth and Environmental Sciences.
2005- 2009	Professional sub-committee	National Higher Education Committee (MALAG): Evaluation of proposed B.Sc. program in restoration and planning of historical sites – West Galilee College.
2004 – 2005	President	Israel Geological Society (IGS)
2002 - 2003	Professional sub-committee	National Higher Education Committee (MALAG): Evaluation of suggested B.Sc. program in civil engineering - Ariel College.
2001 - 2014	Founding President	Israel Rock Mechanics Association (IRMA), an ISRM National Group.
1999 - 2000	Professional sub-committee	Israel Science Foundation (ISF): Earth and Environmental Sciences.
1996 - 1997	Coordinator of activities	Israel Geological Society (IGS).

(c) Significant Professional Consulting

2015 - present	Jordan river rehabilitation Administration	Engineering geology consulting for slope stability problems along the Jordan river
2011-2015	PSP Investments LTd.	Geological engineering consulting for the pumped storage plants in Gilboa and Manara, Israel.
2010-2012	Israel Authority of Antiquities	Reinforcement design for the open rock slope at the Open Kardo, Old City of Jerusalem.
2010-2012	Israel Energy Industries (IEI)	Assessing expected surface settlement due to deep in-situ production of oil shale using the numerical manifold method.
2009 - 2010	Israel Authority of Antiquities	Reinforcement design for the rock slope foundations of the historic walls at Damascus Gate, Old City of Jerusalem.
2008 - 2009	Israel Nature and Parks Authority	Reinforcement design for the rock slopes of the hanging bridge at Banias National Park.
2005 - 2009	Israel Cement Enterprises Ltd.	Stability of open pit mine slopes excavated above large span karstic caverns.
2003 - 2004	National Quarries Rehabilitation Fund	Stability of Zedekiah cavern below the old city of Jerusalem.
2002 - 2005	Israel Ministry of Defense	Blast induced liquefaction potential in loess.
1997 - 2000	Israel Nature and Parks Authority	Dynamic rock slope stability at Masada World Heritage site.
1996 - 1998	Israel Nature and Parks Authority	Stability of the bell-shaped caverns at Bet Guvrin.
1995	Rotem Amfart Fertilizers Ltd.	Rock slope stability at Arad open pit mine.
1992	L. A. County Dept. of Public Works	Evaluation of dam abutments stability under high cleft water pressures, <i>Pacoima dam</i> , California. (With R. E. Goodman).
1991	Kiewit Pacific Co.	Evaluation of rock slope stability, open cut excavation, Mojave siphon power plant, California. (With R. E. Goodman).
1991	United States Bureau of Reclamation	Dam abutments stability during over topping, <i>Seminoe dam</i> , Wyoming (With R. E. Goodman).
1990	Emcon Associates	Rock slope stability under water pressures and earthquake loading, <i>Ox mountain sanitary landfill</i> , California (With R. E. Goodman).

(d) Editor or member of editorial board of a scientific or professional journal

2009 – Present	Editorial Board Member	Rock Mechanics and Rock Engineering
2005 – Present	Editorial Board Member	International Journal of Rock Mechanics and Mining Sciences
2000	Guest Editor	Israel Journal of Earth Sciences. Special issue: Geological and Geotechnical Engineering in Israel, 2000

(e) Membership in professional societies

2001 – Present	President	Israel Rock Mechanics Association (IRMA)
1993 – Present	Member	American Society of Civil Engineers (ASCE)
1993 – Present	Member	International Society of Rock Mechanics (ISRM)
1993 – 2003	Member	Association of Engineering Geologists (AEG)
1987 – Present	Member	Geological Society of Israel (IGS)

(f) Professional registration

1993 – present	Certified for engineering practice in Geological Engineering, State of Israel
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(g) Professional review work

Scientific Journals

International Journal of Rock Mechanics and Mining Sciences; Rock Mechanics and Rock Engineering; International Journal for Numerical and Analytical Methods in Geomechanics; Computers and Geotechnics; Geotechnique; Tunneling and Underground Space Technology; Engineering Geology; Geological and Geotechnical Engineering; ASTM Geotechnical Testing Journal; Engineering and Environmental Geology, Israel Journal of Earth Sciences; Tectonophysics.

Research Organizations

Israel Science Foundation (ISF); US – Israel Bi-national Science Foundation (BSF); German-Israel Foundation (GIF); National Ministry of Infrastructure.

Educational Activities(a) Academic courses taught at BGU (Course Name/Level/Dept.)

Introduction to Geomechanics	Undergraduate	Geol. & Envir. Sci.
Rock Slope Stability	Upper Division/Graduate	Geol. & Envir. Sci. Structural Eng.
Rock Mechanics	Upper Division/Graduate	Geol. & Envir. Sci. Structural Eng.
Rock Tunneling	Upper Division/Graduate	Geol. & Envir. Sci. Structural Eng.

(b) M. Sc. and Ph. D. theses advisor

Ehud Gavish	M. Sc.	1996	Evaluation of empirical classification methods (Q, RMR) for tunneling in bedded rock: lessons from the Giloh tunnels, Jerusalem .(Jointly with Dr. Y. Arkin, Geological Survey of Israel)
Ron Benari	M. Sc.	1996	Stability of underground openings in jointed chalky rock: a case study from Tel Beer-Sheva national park
Moshe Levine	M. Sc.	1996	Slope stability analysis and back calculation of plane failure in Arad open pit mine
Alon Zur	M. Sc.	1997	Influence of grain size and texture on ultimate strength of dolomites
Eli P. Heyman	M. Sc.	1997	Mechanical behaviour of Mt. Sedom rock salt. Recipient of the 1998 Israel Mineral Science and Engineering Association award for outstanding MSc. thesis
Michael Tsesarsky	M. Sc.	1999	Stability of underground openings in jointed chinks: a case study from the bell-shaped caverns, Bet-Guvrin national park. Recipient of the 2000 Geological Society of Israel award for outstanding MSc. thesis
Boaz Saltzman	M. Sc.	2001	Possible correlation between mechanical layer's joint spacing and its rock mechanical properties. (Jointly with Prof. Y. Eyal, BGU)
Michael Tsesarsky	Ph. D.	2004	Stability of underground openings in stratified and jointed rock
Ilia Wainshtein	M. Sc.	2004	Liquefaction potential of the Southern coastal plain, Israel
Carola Eimermacher	M. Sc.	2005	Stability of high span openings in discontinuous rock: case history – Zedekiah's cave, Jerusalem
Dikla Hadad	M. Sc.	2005	Comparison between lattice-preferred orientation of calcite (LPO) and mechanical anisotropy in chinks. (Jointly with Prof. H. Kish, BGU)
Shlomi Manor	M. Sc.	2005	The influence of grain contact geometry on the mechanical behavior of sedimentary rocks. (Jointly with Dr. V. Palchik, BGU)
Itai Orian	M. Sc.	2006	Mechanical properties of loess soils from the southern coastal plain, Israel
Ronnie Kamai	M. Sc.	2006	Estimation of historical seismic ground-motions of structural failures in archeological sites. (Jointly with Dr. S. Marco, Tel Aviv University) Recipient of the 2005 Geological Society of Israel award for outstanding MSc. thesis

Gony Yagoda–Biran	M. Sc.	2008	Seismic hazard estimation along eastern margins of sea of Galilee by back analysis of seismically induced natural and structural failures. (Jointly with Drs. R. Amit and O. Katz, Geological Survey of Israel) Recipient of the 2008 Geological Society of Israel award for outstanding MSc. thesis
Dagan Bakun-Mazor	M. Sc.	2008	Modeling mechanical layering in discontinuous rock masses for deformation analysis. Recipient of the 2008 Asaf Gur Memorial award for outstanding MSc. thesis
Gabriele Monacis	M. Sc.	2008	Discrete element modeling of jointed beams (Jointly with Professor Giovanni Barla, Politecnico di Torino). Thesis submitted to Dept. of Structural and Geotechnical Engineering, Politecnico di Torino.
Ilia Wainshtein	Ph. D.	2009	A model for bearing capacity of pile/rock interfaces based on direct shear tests, in situ load tests, and numerical analyses.
Omer Biran	M. Sc.	2011	Rate and State friction experiments in direct shear. (Jointly with Dr. Alon Ziv, BGU, now at TAU)
Dagan Bakun-Mazor	Ph. D.	2011	Environmentally controlled, multi scale, dynamic behavior of rock masses. (Jointly with Prof. Steven Glaser, U. C. Berkeley)
Elchannan Livne	M. Sc.	2012	Evaluation of the liquefaction potential along the Dead-Sea western shores – Regional screening and geotechnical analysis of two boreholes (Jointly with Dr. Amos Salomon, GSI).
Yuval Tal	M. Sc.	2012	Modeling the excavation sequence with the numerical Manifold Method (NMM)
Yael Rosenthal	M. Sc.	2013	Deducing seismic risk from structural failures in masonry arches below the old city of Jerusalem
Ksenia Bisnovat	M. Sc.	2013	Mechanical and petrophysical behavior of oil shale formations from the Judean Plains, Israel (Jointly with Prof. Shimon Feinstein, BGU)
Guy Davidesko	M. Sc.	2013	Evolution of surface roughness through shear (jointly with Dr. Amir Sagy, Geological Survey of Israel).
Gony Yagoda-Biran	Ph. D.	2013	Seismic Hazard Analysis using the Numerical DDA Method. Recipient of the 2013 Asaf Gur Memorial award for outstanding PhD thesis
Omri Shitrit	M. Sc.	2014	Mechanical and petrophysical behavior of oil shale formations from the Judean Plains, Israel (Jointly with Prof. Shimon Feinstein, BGU and Dr. Harold Vinegar, IEI)
Nir Badt	M. Sc.	2015	Role of normal stress constraints on roughness evolution through shear (jointly with Dr. Amir Sagy, Geological Survey of Israel)
Ravit Zelig	M. Sc.	2015	Numerical modeling of wave propagation through discontinuous media with implications to rock bursts.
Aviran Feldheim	M. Sc.	2016	Physical modeling of the wedging-ratcheting mechanics
Yair Gordin	M. Sc.	2016	Mechanical and petrophysical anisotropy of organic rich chalks
Omri Shitrit	Ph. D.	2018	Poroelasticity of organic rich chalks. (Jointly with Prof. Shimon Feinstein and Prof. Harold Vinegar, BGU) Recipient of the 2016 Asaf Gur Memorial award for outstanding PhD thesis
Nahum Kazaz	M. Sc.	2017	
Yuval Keisar	M. Sc.	2017	
Doron Morad	M. Sc.	2017	
Yair Gordin	Ph. D.	2021	Remote Detection of Thermal Maturation in Source-Rocks Using Seismic Anisotropy. (Jointly with Prof. Harold Vinegar, BGU).

(c) M. Sc. and Ph. D. committees (participation in qualifying exams and reviewing theses)

Amir Eidelman	Ph. D.	1994	Earth Science Institute, Hebrew University
Marsello Brafman	M. Sc.	1995	Dept. of Civil Engineering, Technion
Galit Cadan	M. Sc.	1996	Dept. of Geol. and Environ. Sc., BGU

Yoav Zur	M. Sc.	1997	Dept. of Geol. and Environ. Sc., BGU
Ram Weinberger	Ph. D.	1998	Earth Science Institute, Hebrew University
Joel Roskin	M. Sc.	1999	Dept. of Geol. and Environ. Sc., BGU
Amir Sagi	Ph. D.	1999	Earth Science Institute, Hebrew University
Oded Katz	Ph. D.	2002	Earth Science Institute, Hebrew University
Itai Einav	Ph. D.	2002	Dept. of Civil Engineering, Technion
Ran Frank	M. Sc.	2003	Dept. of Geol. and Environ. Sc., BGU
Dheeraj Kumar	Ph.D.	2003	Dept. of Mining Engineering, <u>Indian Institute of Mining Engineering, India</u>
Menahem Weiss	Ph. D.	2003	Dept. of Geol. and Environ. Sc., BGU
Maya Elimelech	M. Sc.	2004	Dept. of Geol. and Environ. Sc., BGU
Relli Wald	M. Sc.	2004	Dept. of Geol. and Environ. Sc., BGU
Carmi Zion	M. Sc.	2004	Dept. of Geophysics, Tel Aviv University
Sharbel Shehada	M. Sc.	2005	Faculty of Civil Engineering, Technion
Limor Levy	M. Sc.	2005	Dept. of Mechanical Eng., BGU
Ran Frank	Ph. D.	2006	Dept. of Geol. and Environ. Sc., BGU
Arilon Meir	Ph. D.	2006	Faculty of Civil Engineering, Technion
Tamir Kamai	M. Sc.	2006	Dept. of Geol. and Environ. Sc., BGU
T. Meyrova	Ph. D.	2007	Dept. of Geophysics, Tel Aviv University
Ran Nof - Nowitsky	Ph. D.	2008	Dept. of Geol. and Environ. Sc., BGU
Ran Frank	Ph. D.	2009	Dept. of Geol. and Environ. Sc., BGU
Huirong Bao	Ph. D.	2010	School of Civil and Environ. Eng. <u>Nanyang Technological University, Singapore</u>
Alon Brill	Ph. D.	2010/14	Dept. of Mechanical Eng., BGU
Asaf Inbal	Ph. D.	2010	Dept. of Geol. and Environ. Sc., BGU
Xinmei An	Ph. D.	2010	School of Civil and Environ. Eng. <u>Nanyang Technological University, Singapore</u>
Arilon Maher	Ph. D.	2010/13	Faculty of Civil Engineering, Technion.
Eli Mahleb	M. Sc.	2011	Dept. of Geol. and Environ. Sc., BGU
Shahar Kadmiel	Ph. D.	2011	Dept. of Geol. and Environ. Sc., BGU
Noam Yossef Hai	Ph. D.	2012	Dept. of Geol. and Environ. Sc., BGU
Amir Wannan	M. Sc.	2013	Dept. of Geol. and Environ. Sc., BGU
Moria Hazan	M. Sc.	2013	Dept. of Geol. and Environ. Sc., BGU
Alon Brill	Ph. D.	2013	Dept. of Mechanical Engineering, BGU
Xiaolei Qu	Ph. D.	2013	School of Civil and Resource Engineering, <u>The University of Western Australia.</u>
Huimei Chen	Ph. D.	2014	School of Civil and Environ. Eng. <u>Nanyang Technological University, Singapore</u>
Guoyang Fu	Ph. D.	2014	School of Civil, Environmental and Mining Engineering, <u>The University of Western Australia.</u>
Rachel Avraham Katriel	Ph.D.	2015	Faculty of Civil Engineering, Technion.
Shalev Siman-Tov	Ph. D.	2015	Institute of Earth Sciences, Hebrew University of Jerusalem
Tal Feinstein	M. Sc.	2016	Dept. of Structural Engineering, BGU
Shahar Ben-Zeev	M. Sc.	2016	Institute of Earth Sciences, Hebrew University of Jerusalem

(d) Visiting international students, post docs, and scholars at lab

Hugo Gonzales	B. Sc.	2003	Chile
Gabriele Monacis	M. Sc.	2008	Politecnico di Torino, Italy
Emanuel Cohen	B. Sc.	2009	CERMES - Institut Navier. Ecole Nationale des Ponts et Chaussées, France
Huirong Bao	Post Doc	2011-12	Nanyang Technological University (NTU), Singapore
Benguo He	Post Doc	2014-17	Southwest Jiaotong University, Chengdu, Sichuan Province, China. Recipient of PBC Program for Fellowships for Outstanding Post-doctoral Researchers from China and India

Juan Pablo Ibanez Sabbatical 2017 Universidad Nacional de Cuyo, Mendoza, Argentina.

Awards, Citations, Honors, Fellowships

(a) Honors and Awards

2016	BGU Rector Award for Excellence in Teaching
2011	Visiting Professorship for Senior International Scientists, Chinese Academy of Sciences
2011	BGU Dean of Natural Sciences Award for Excellence in Research
2011	BGU Rector Award for Excellence in Teaching
2011	2011 American Rock Mechanics Association (ARMA) Applied Rock Mechanics Research Award
2010	BGU Dean of Natural Sciences Award for Excellence in Teaching
2007	Incumbent of the Dr. Sam and Edna Lemkin Chair in Rock Mechanics, BGU
2006	BGU Dean of Natural Sciences Award for Excellence in Teaching
2003	Shamshar Prakash Foundation Award (USA) for excellence in the practice of and significant contribution to Geotechnical Engineering
2000	Israel Mineral Science and Engineering Association award for establishing a state of the art rock mechanics laboratory at BGU and for innovative research in geological engineering
1989	Association of Engineering Geologists - San Francisco Section, Student Speaker on behalf of U.C. Berkeley Geotechnical Engineering Group, CA. USA

(b) Fellowships and special grants

2009	European Office of Aerospace Research and Development – U.S. Air Force Research Laboratory – in support of the Batsheva seminar	\$15,000
2009	<i>The Batsheva de Rothschild Seminar Grant</i> of the ISF to organize an international seminar on shear physics at the meso-scale in landslides and earthquake mechanics	\$40,000
1996	<i>Maria Zoltan Toman Fund</i> for academic excellence (Jointly with S. Fienstein), BGU	\$10,000
1991	<i>Jane Lewis</i> competitive fellowship, U. C. Berkeley, USA	\$ 9,000
1991	The Geological Engineering Foundation Grant, Berkeley, USA	\$ 3,000
1990	Mineral Institute competitive fellowship, U. C. Berkeley, USA	\$ 8,500
1989	<i>Jane Lewis</i> competitive fellowship, U. C. Berkeley, USA	\$ 3,750
1988	Hebrew U. - U. of Cal. competitive reciprocity scholarship	\$11,000

Scientific Publications

(a) Edited Volumes

1. Hatzor, Y. H. (Editor) 2002. Stability of Rock Structures. *Proceedings of the 5th International Conference on Analysis of Discontinuous Deformation*. Balkema Publishers, Lisse, 239p.
2. Hatzor, Y. H., J. Sulem, and I. Vardoulakis (Editors) 2009. Shear Physics at the Meso-Scale in Earthquake and Landslide Mechanics. CRC Press/Balkema, The Netherlands, 285p.

(b) Refereed articles in scientific journals

1. Hatzor Y., and Z. Reches, 1990. Structure and paleostresses in the Gilboa' region, western margins of the central Dead Sea rift. *Tectonophysics*, Vol. 180, pp. 87-100.
2. Shaliv G., Y. Mimran and Y. Hatzor, 1992. The sedimentary and structural history of the Bet She'an area and its regional implications. *Isr. J. Earth Sci.* Vol. 40, pp. 161-179.
3. Reches Z., G. Baer and Y. Hatzor, 1992. Constraints on the strength of the upper crust from stress inversion of fault slip data. *J. Geophys. Res.* Vol. 97, No. B9, pp. 12,481-12,493.
4. Hatzor Y., 1993. The block failure likelihood: A contribution to rock engineering in blocky rock masses. *International Journal of Rock Mechanics and Mining Sciences*, Vol. 30, No.7, pp. 1591-1597.
5. Hatzor Y., Benjamini C., Mimran Y. and L. P. Grossowicz, 1994. The Eocene stratigraphy of Mt. Gilboa and Northern Samaria, *Israel. Isr. J. Earth Sci.* Vol. 43, No. 1, pp.1-20.
6. Eyal Y., Y. Hatzor, and A. Eyal, 1995. On the formation of a recent small fracture in a phosphorous mine, Nahal Zin, Israel. Technical Note. *Isr. J. Earth Sci.* Vol. 44, No.2 pp. 111-114.
7. Hatzor Y. H. and R. E. Goodman, 1997. Three dimensional back analysis of saturated rock slopes in discontinuous rock - a case study. *Geotechnique*, Vol. 47, No. 4, 817-839.
8. Hatzor, Y. H. and V. Palchik, 1997. The influence of grain size and porosity on crack initiation stress and critical flaw length in dolomites. *International Journal of Rock Mechanics and Mining Sciences.*, Vol. 34, No. 5, pp. 805-816.
9. Hatzor, Y. H. and E. P. Heyman, 1997. Dilation of anisotropic rock salt: evidence from Mount Sedom diapir. *J. Geophys. Res.*, Vol. 102, No. B7, pp. 14,853-14,868.
10. Hatzor, Y. H., A. Zur, and Y. Mimran, 1997. Microstructure effects on microcracking and brittle failure of dolomites. *Tectonophysics*, Vol. 281, No. 3-4, pp. 141-161.
11. Hatzor, Y. H. and M. Levin, 1997. The shear strength of clay filled bedding planes in limestones - back analysis of a slope failure in a phosphate mine, Israel. *Geotechnical and Geological Engineering*. Vol. 15, pp. 263-282.
12. Hatzor, Y. H. and R. Benary, 1998. Stability of a laminated Voussoir beam: back analysis of a historic roof collapse using DDA. *International Journal of Rock Mechanics and Mining Sciences.*, Vol. 35, No. 2, pp. 165-181.
13. Hatzor, Y. H. and V. Palchik, 1998. A microstructure-based failure criterion for Aminadav dolomites - Technical Note. *International Journal of Rock Mechanics and Mining Sciences*, Vol. 35, No. 6, pp. 797-805.
14. Hatzor, Y. H., and E. P. Heyman 1998. The influence of bedding plane orientation on the compression-dilation boundary in anisotropic rock salt. *International Journal of Rock Mechanics and Mining Sciences*. Vol. 35, No. 4/5, CD-ROM Paper ISR-324-1.
15. Tsesarsky, M., Y. H. Hatzor, and M. L. Talesnick, 2000. The stability of Bet Guvrin caverns – integrated analysis in weak, anisotropic, and discontinuous chalk *Isr. J. Earth Sci.* Vol. 49, No. 2, pp. 81-102.
16. Palchik V. and Y. H. Hatzor, 2000. Correlation between mechanical strength and microstructural parameters of Dolomites and Limestones in the Judea Group, Israel. *Isr. J. Earth Sci.* Vol. 49, No. 2, pp. 65-80.

17. Talesnick, M. L., Y. H. Hatzor, and M. Tsesarsky, 2001. The elastic deformability and strength of a high porosity, anisotropic, chalk. *International Journal of Rock Mechanics and Mining Sciences*. Vol. 38, No. 4, pp. 543-555.
18. Hatzor, Y. H. and A. Feintuch, 2001. The validity of dynamic displacement prediction using DDA. *International Journal of Rock Mechanics and Mining Sciences*. Vol. 38, No. 4, pp. 599-606.
19. Palchik, V., and Y. H. Hatzor, 2002. Crack damage stress as a composite function of porosity and elastic matrix stiffness in dolomites and limestones. *Engineering Geology*. Vol. 63, pp. 233 – 245.
20. Hatzor, Y. H., Talesnick, M. L., and M. Tsesarsky, 2002. Continuum and Discontinuum Stability Analysis of the Bell Shaped Caverns at Bet Guvrin, Israel. *International Journal of Rock Mechanics and Mining Sciences*. Vol. 39, No. 7, pp. 867-886.
21. Hatzor, Y. H. 2003. Keyblock stability in seismically active rock slopes – the Snake Path cliff – Masada. *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE. Vol. 129, No. 8, pp. 697 - 710.
22. Hatzor, Y. H., Y. Zaslavsky, A. A. Arzi, and A. Shapira. 2004. Dynamic stability analysis of jointed rock slopes using the DDA method: King Herod's palace, Masada. *International Journal of Rock Mechanics and Mining Sciences*. Vol. 41, No. 5, pp. 813 – 832.
23. Palchik, V. and Y. H. Hatzor, 2004. The influence of porosity on tensile and compressive strength of chalks. *Rock Mechanics and Rock Engineering*. Vol. 37, No. 4, pp. 331-341.
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42. Shitrit, O., Y. O. Rosenberg, Y. H. Hatzor, I. Reznik, S. Nguyen, S. Feinstein, and H. J. Vinegar, 2015. CONSTITUTIVE MODEL FOR MECHANICAL PROPERTIES OF HIGHLY POROUS ORGANIC-RICH CHALKS FROM CENTRAL ISRAEL. In: *Innovations in applied and theoretical rock mechanics. Proceedings of the 13th ISRM Congress*. May 10 – 13, Montreal, Canada.
43. Ravit Zelig, Yossef H. Hatzor, and Xia-Ting Feng, 2015. Rock burst simulations with 2D-DDA. *Proceedings of the 49th U.S. Rock Mechanics Symposium*. June 28 – July 1 2015. San Francisco.
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47. Shitrit O., Hatzor Y.H., Feinstein S., Vinegar H.J., 2016. Influence of Laboratory-Induced Maturation on Rock-Physics of Organic-Rich Chalks In: *Proceedings of the 50th U.S. Rock Mechanics Symposium*, June 26 – 29, Huston, Texas.
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49. Hatzor, Yossef H. 2016. Seismic vulnerability of historic monuments: a rock mechanics perspective. In: *Rock Mechanics and Rock Engineering: From the Past to the Future – Ulusay et al., (Eds.)*. Proceedings of EUROCK 2016. Taylor and Francis Group, London, pp. 75 – 84.

Lectures and Presentations at Meetings and Seminars

(a) Invited lectures

1. Natural rock slope stability issues at Masada national monument. 9th ISRM Congress. Paris, France, 1999. Plenary Lecture.
2. Preservation of historic rock and stone monuments in Israel. Workshop of ISRM commission on preservation of historical monuments, 2nd Asian Rock Mechanics Symposium, ISRM. Beijing, China, 2001. Special Lecture.
3. Stability of monuments in rock. The Earth Sciences Day – Sponsored by Israel Geological Society, Tel Aviv, Israel, 2001. Plenary Lecture.
4. Realistic Dynamic Analysis of Jointed Rock Slopes using DDA. 5th International Conference on Analysis of Discontinuous Deformation. Wuhan, China, 2002. Plenary Lecture.
5. Fully dynamic stability analysis of jointed rock slopes. International Conference on probability and mathematics. Co-sponsored by Hebrew U. and BGU. Beer – Sheva, Israel, 2003. Plenary Lecture.
6. Stability of historical monuments in rock. Special conference on preservation of historical sites and cities. Western Galilee College, Akko, Israel, 2004. Plenary Lecture.
7. Mechanical behavior of sedimentary rocks in Israel – keynote address. Israel Geological Society Annual Meeting, Mashabim. 2005. Plenary Lecture.
8. Dynamic back analysis of structural failures in archeological sites to obtain paleo-seismic parameters using DDA. 7th International Conference on the Analysis of Discontinuous Deformation. Honolulu, Hawaii, Dec. 10-12, 2005. Plenary Lecture.
9. Structural stability of historic underground openings in rocks: two case studies from Israel. Professional symposium on Fracture and Failure of Natural Building Stones, 16th European Conference on Fracture, Alexandropolis, Hellas, July, 3-4, 2006. Plenary Lecture.
10. Validation and application of discontinuous deformation analysis. 1st Sri Lankan Geotechnical Society International Conference on Soil and Rock Engineering, Colombo, Sri Lanka, August 7-11, 2007. Special Lecture.

11. Seismic risk estimates from back analysis of structural failures and landslides in Israel. Special conference on new developments in seismic engineering design. Organized by the Association for Structural Engineering and Infrastructure in Israel. Tel Aviv, Israel, March 12, 2008. Plenary Lecture.
12. DDA analysis of structural failures in masonry monuments and natural rock slopes: a new method to estimate historic ground motions. MIR Workshop on Rock Mechanics and Geotechnical Engineering. Politecnico di Torino, Italy. Dec. 2-3, 2008. Plenary Lecture.
13. Constraining paleoseismic PGA using numerical analysis of structural failures in historic masonry structures. INQUA International Work Shop. Zefat, Israel, Feb. 16, 2009. Plenary Lecture.
14. Constraining paleoseismic PGA using numerical analysis of structural failures in historic masonry structures. ISRM Workshop on Rock Dynamics. EPFL, Lausanne, June 17-18, 2009. Plenary Lecture.
15. Preservation of Rock and Stone Monuments in Seismic Zones. Second UNESCO World Heritage workshop on "Disaster Risk Reduction to Cultural Heritage". November 14 – 17, 2009. Acre, Israel. Plenary Lecture.
16. Stability of shallow caverns below cities and mines in blocky rock masses: limiting relationship between cavern span and minimum cover height required for stability. Workshop on Underground Technology and Rock Engineering (UTRE) research, Nanyang Technological University, Singapore, November 23 – 24, 2009. Plenary Lecture.
17. Stability of Shallow Karstic Caverns Below Open Pit Mines: Limiting Relationships Between Cavern Span and Cover Thickness. 9th International Conference on Analysis of Discontinuous Deformation (ICADD-9), Singapore, November 25 - 27, 2009. Keynote address.
18. Modeling Dynamic Deformation in Natural Rock Slopes and Underground Openings with DDA. 40th Japanese Society of Discontinuous Analysis Meeting. Kyoto University Tokyo Office, Oct. 20, 2010, Tokyo, Japan. Plenary Lecture.
19. Modeling Dynamic Deformation in Natural Rock Slopes and Underground Openings with DDA. 6th Asian Rock Mechanics Symposium, New Delhi, India, October 24 – 27, 2010. Keynote address.
20. Risk assessment of collapse in shallow caverns using numerical modeling of block interactions with DDA: Suggested approach and case studies. International Top-level Forum on Engineering Science and Technology Development Strategy — Safe Construction and Risk Management of Major Underground Engineering. May 17 – 19, 2012. Wuhan, China. Keynote address.
21. Conservation of Cultural Heritage Monuments in Rock Sites: Case Studies from Israel. The Conservation Institute of Dunhuang Academy of China. April 26, 2013. Special Invited Lecture.
22. Site response analysis with 2D-DDA. 11th International Conference on Analysis of Discontinuous Deformation (ICADD-11), August 27-29, 2013, Fukuoka, Japan. Keynote address.
23. Quantitative assessment of archeo-earthquakes from back analysis of historic masonry structures. Pre-instrumental earthquakes: Italy – Israel Binational Symposium. 16 September, 2013. Ma'agan Eden, Lake Kinneret (Sea of Galilee), Israel. Plenary Lecture.
24. Seismic vs. thermal triggering of large landslides. Vajont 2013 Conference. Padua, Italy Oct. 8 – 10, 2013. Keynote Address.
25. Discontinuous Deformation Analysis in Rock Mechanics Practice. 13th ISRM Congress. Montreal, Canada May 10 – 13, 2015. Keynote address.

26. Modeling Very Deep Underground Excavations Inspired by Dick Goodman's Philosophy (DDA/NMM). Richard E. Goodman Geological Engineering Symposium. Jenner, California USA, July 2, 2015. Plenary lecture.
27. Modeling rock bursts in discontinuous rock masses with DDA. The 12th International Conference on Analysis of Discontinuous Deformation (ICADD-12). Wuhan, China, October 16 to 19, 2015. Keynote address.
28. Seismic effects on historic monuments: some examples from Israel. The International Symposium on Scientific Problems and Long-term Preservation of Large-scale Ancient Underground Engineering. Zhejiang Province, China, October 23-26, 2015. Keynote address.
29. Seismic vulnerability of historic monuments: a rock mechanics perspective The 2016 ISRM International Symposium "EUROCK2016", Cappadocia (Ürgüp), Turkey, 29 - 31 August, 2016. Keynote address.
30. Rockburst simulations with DDA. 15th International Conference of the International Association for Computer Methods and Advances in Geomechanics (15th IACMAG), October 19-23, 2017, Wuhan, China. Keynote address.

(b) Invited seminars at universities and institutions

1. Short course on Block Theory. TerraTek Research. Salt Lake City, Utah, 1992.
2. Alternative methods for tunnel design in jointed rock masses. Geological Survey of Israel, Jerusalem, 1992.
3. New developments in tunneling through discontinuous rock. Dept. of Geology and Mineralogy, BGU, 1992.
4. Relationship between grain size and mechanical strength of Dolomites. Geological Survey of Israel, Jerusalem, 1994.
5. Application of Block Theory to engineering of underground space in jointed rock. Dept. of Geotechnical Engineering Faculty of Civil Engineering, The Technion, 1994.
6. Three Dimensional stability of rock blocks in saturated slopes. Earth Science Institute, Hebrew University of Jerusalem, 1995.
7. Stability issues in bedded and jointed chalk - Case studies from the Northern Negev. Department of Geology and Mineralogy, BGU, 1995.
8. Back analysis of three large rock failures around the world. Special seminar in Geotechnical Engineering, Department of Civil Engineering, University of California, Berkeley, 1995.
9. Stability of underground openings in bedded and jointed chinks: case studies from Tel Beer-Sheva and Beit Gubrin. Department of Physical Geography, The Hebrew University of Jerusalem, 1996.
10. Relationship between engineering geology and civil engineering. The Engineers Club, Beer-Sheva, 1996.
11. Application of basic and advanced rock mechanics principles to the solution of engineering problems. A special conference. Earth Science Institute - Hebrew University, 1998.
12. Dilation of anisotropic rock salt - TerraTek Research, USA, 1998.
13. The engineering of underground opening in soft chinks - new solutions to old problems. Earth Science Institute - Hebrew University, 1998.
14. Geological Engineering in Israel towards the year 2,000. A special conference on science and technology at Nevatim Air Force Base, 1998.
15. Rock slope stability analysis at Masada national park. Dept. of Geotechnical Eng. - The Technion, 1998.
16. Rock slope stability analysis at Masada national park. Earth Science Institute - Hebrew University, 1999.
17. Rock slope stability analysis at Masada national park. The Dean of the Natural Science Faculty Forum – BGU, 1999.
18. Rock slope stability analysis at Masada national park. The Engineers Club – Beer Sheva, 2000.
19. Rock slope stability analysis at Masada national park. Dept. of Civil and Environmental Engineering, University of California, Berkeley, 2001.
20. Dynamic rock slope stability analysis. Geophysical Institute of Israel, Lod, 2001.
21. Rock Slope Stability at Masada. Geological Survey of Israel, Jerusalem, 2001.
22. Fully dynamic analysis of jointed rock slopes using DDA. Dept. of Environmental Sciences and Energy Research. The Weizmann Institute of Science, 2002.
23. Realistic dynamic analysis of jointed rock slopes. Dept. of Mechanical Engineering, BGU, 2004.

24. The effect of pre-consolidation on frictional strength of clay filled discontinuities Weizmann Institute of Sciences. Special Geodynamics workshop, 2004
25. Theory and application of discontinuous deformation analysis. Geological Survey of Israel, Jerusalem, 2005.
26. Mechanical behaviour of typical rock formations in Israel. Nuclear Research Center, Dimona, 2006
27. Theory and application of discontinuous deformation analysis. Hebrew University, Jerusalem, 2007.
28. The numerical discontinuous deformation analysis: theory, validation, and applications. Montana Tech of the University of Montana, Butte, Montana, 2008.
29. Dynamic analysis of rock slope stability. Tel Aviv University, Tel Aviv, 2010.
30. Preservation of underground openings: examples from Ayalon cave, Zedekyah cave, and Tel Beer - Sheva. Ben-Gurion University, Beer-Sheva, 2010.
31. Seismic vulnerability of historic sites, Graduate School of Engineering, Kyoto University, Kyoto, Japan, 2010.
32. Modelling Dynamic Deformation in Natural Rock Slopes and Underground Openings with DDA. Institute of Rock and Soil Mechanics, Chinese Academy of Sciences, August 30, 2011, Wuhan, China .
33. Rock Mechanics and Rock Engineering Research by BGU: Few Examples. Institute for Disaster Management and Reconstruction, Sichuan University, September 5, 2011 , Chengdu, China.
34. Modelling Rock Mass Deformation with DDA and NMM: Applications to Underground Openings. Institute of Tunnel and Metro Engineering, Hohai University, September 12, 2011, Nanjing, China.
35. Geotechnical Earthquake Engineering with the numerical DDA method. Yangtze River Scientific Research Institute, Wuhan, China, February 23, 2012.
36. Underground Engineering with DDA. State Key Laboratory for Geomechanics and Deep Underground Engineering, Beijing, China. March 15, 2012 , Beijing, China.
37. DDA Seminar, Beijing University of Technology, Beijing, China, August 19 – 24, 2012. Jointly with Dr. Gen-hua Shi and Professor Guowei Ma.
38. Accuracy of Wave Propagation Modeling with 2D-DDA. 1st DDA Workshop. Seoul, South Korea, October 14, 2012.
39. Engineering challenges in very shallow and very deep underground mining: the case of the very shallow Ayalon cave and the very deep Jinping tunnels. Geological Survey of Israel, January 13, 2013.
40. Conservation of Cultural Heritage Monuments in Rock Sites: Case Studies from Israel. School of Cultural Heritage, North West University, Xian, China. April 22, 2013.
41. Conservation of Cultural Heritage Monuments in Rock Sites: Case Studies from Israel. School of civil Engineering and Mechanics, Gansu, Lanzhou, China. April 28, 2013.
42. Geological Engineering Challenges in very shallow and very deep underground openings. Dept. of Geophysics and Planetary Sciences. Tel Aviv University. June 3, 2013.
43. Modeling dynamic deformation with DDA. Department of Civil Engineering, College of Resource and Civil Engineering, Northeastern University, Shenyang, China. August 20, 2013.
44. DDA Seminar, Beijing University of Technology, Beijing, China, August 21 – 25, 2013. Jointly with Dr. Gen-hua Shi and Professor Guowei Ma.
45. Modeling deformation of old masonry structures with the numerical DDA method: examples from historic monuments in Israel. Technical University of Athens (NTUA), School of applied mathematical and physical science, Dept. of Mechanics, Athens, Greece, February 10, 2015.
46. Rockbursts in discontinuous rock masses: theoretical analysis and field results from the Jinping hydroelectric project in China. Israel Geological Society Annual Meeting, Eilat, January 20, 2016 (invited talk).

Research Grants

(a) Competitive Grants

1993 - 1995	Ministry of National Infrastructure	The complete stress strain curve and failure criteria of Judea Group Dolomites.	Y. Hatzor Y. Mimran	\$33,000
1994 - 1997	Ministry of Science	Investigation of the mechanical behavior of Mount Sedom Rock Salt in order to evaluate the feasibility of underground hazardous waste storage plants.	Y. Hatzor V. Palchik	\$37,000

1999 - 2003	US-Israel Bi-national Science Foundation (BSF)	Stability of underground openings in jointed and laminated rock.	Y. Hatzor N. Sitar Gen-hua Shi	\$150,000
1999 - 2000	Ministry of National Infrastructure	Relationship between mechanical behavior and jointing patterns in rock	Y. Hatzor Y. Eyal	\$13,000
2002 - 2003	Ministry of Defense	Stability of underground openings in saturated sands.	Y. Hatzor H. Gvirzman	\$13,000
2003 - 2005	Ministry of Defense	Potential for blast induced liquefaction in silty sands	Y. Hatzor H. Gvirzman	\$35,000
2004	Ministry of Housing and Construction	Shear resistance of pile – rock interfaces	Y. Hatzor	\$22,381
2005 - 2009	US-Israel Bi-national Science Foundation (BSF)	Environmentally controlled, multi scale, dynamic behavior of rock masses	Y. Hatzor S. Glaser	\$200,000
2007	National Steering Committee for earthquake readiness	Seismic hazard assessment along the eastern margins of lake Kineret	Y. Hatzor R. Amit O. Katz	\$20,000
2007 - 2008	Ministry of National Infrastructure	Laboratory friction experiments with implications for seismic risk analysis	Y. Hatzor A. Ziv	\$20,000
2008 - 2012	Israel Science Foundation (ISF)	Determination of Paleoseismic Ground Motions from Inversion of Block Failures in Masonry Structures	Y. Hatzor	\$200,000
2008 - 2010	Ministry of National Infrastructure	Liquefaction potential of sediments along the shores of the Dead Sea	Y. Hatzor A. Salamon	\$ 25,000
2013-2017	Israel Science Foundation (ISF)	Thermally-induced irreversible displacements in discontinuous rock slopes	D. Bakun-Mazor Y. H. Hatzor	\$ 200,000
2016-2017	Ministry of Defense	Geomechanical properties of soils	Y. Hatzor R. Kamai	\$ 100,000

(b) Industry Grants

1994	Moriah - Authority for the development of Jerusalem	Mechanical behaviour of Beit-Meir dolomites and their adaptability for tunneling	Y. Hatzor	\$2,800
1995	Moriah - Authority for the development of Jerusalem	Mechanical behavior of Menuha chalks and their adaptability for tunneling	Y. Hatzor	\$6,500
1995	National Park Authority	Underground opening stability in highly jointed chalk - Tel Beer-Sheva	Y. Hatzor	\$13,000
1995	Rotem Fertilizers Ltd.	Rock slope stability analysis in Arad open pit mine	Y. Hatzor	\$12,000
1996	Moriah - Authority for the development of Jerusalem	Mechanical behaviour of Aminadav Fm. dolomites and their adaptability for tunneling	Y. Hatzor	\$13,000
1997	Ministry of Defense	Mechanical behavior of carbonates from the Galilee for underground storage plants	Y. Hatzor	\$10,000
1996 – 1997	National Park Authority	Stability of the bell-shaped caverns at Bet Guvrin	Y. Hatzor M. Talesnick	\$21,600
1997 - 1998	Oil and Energy Infrastructures Ltd.	Mechanical behaviour of Mt. Carmel lithologies for tunneling feasibility studies	Y. Hatzor	\$19,000
1997 - 2000	National Park Authority	Dynamic rock slope stability analysis and monitoring in Masada	Y. Hatzor	\$80,650
2002	Ministry of Housing and Construction	Mechanical strength of limestones for bridge footing design in Modeen.	Y. Hatzor	\$5,000
2002	Yefe Nof Inc.	Mechanical strength of dolomites for the Carmel tunnel project	Y. Hatzor	\$2,500
2003	National Quarries Rehabilitation Fund.	Stability analysis of the ancient Zidekiahu cavern, Jerusalem	Y. Hatzor	\$25,000

2004	Ministry of Defense	Mechanical behavior of basaltic rock specimens	Y. Hatzor	\$7,500
2004	Ministry of Housing and Construction	Stability and reinforcement analysis for the "Gibborim" overhang in Haifa	Y. Hatzor	\$8,100
2006 - 2008	Israel Cement Enterprises Ltd.	Numerical stability analysis of underground cavern roof thickness vs. roof span + conservation strategies for Ayalon cave	Y. Hatzor	\$50,000
2010 - 2014	Israel Energy Initiatives IEI	Mechanical and petrophysical behaviour of oil shale from the Judean Plains region, Israel.	Y. Hatzor	\$137,000
2015 - 2016	AFEK Oil and Gas Ltd.	Mechanical and petrophysical behaviour of carbon rich chalk from Ness boreholes, Golan.	Y. Hatzor	\$ 49,000