#### 4-2021

# **CURRICULUM VITAE**

Name: Leibovich Edward Date & place of birth: 10-05-1961, Romania Citizenship: Israeli Date of arrival to Israel: 1962 Marital status: Married + 3 Affiliation: SCE – Sami Shamoon College of Engineering, Beer Sheva, P.O.B. 950, 84100. Tel: +972-8-6475629 E-mail: edwardl@sce.ac.il Residence address: 12A, Admonit St, Netanya, Israel Tel: +972-9-8354241 Military Service: IDF 1979-1982

#### **1. Academic Education**

1989 - 1999- D.Sc. The Technion - Haifa

Name of advisor: Prof. A.V Rutenberg and Prof. D. Yankelevsky Title of thesis: Symmetric an Asymmetric pounding between Adjacent buildings.

1986 – 1989 – M.Sc - The Technion – Haifa Name of advisor: Prof. A. V Rutenberg Title of thesis: Guyed towers and mast response under asymmetric Loads"

1982 - 1986 - B.Sc. - Civil Engineering Faculty, Technion, Haifa

# 2. Academic Employment

2006 – present	Senior lecturer Sami Shamoon College of Engineering
	Beer Sheva, Israel
2004 – present	Lecturer Ben Gurion University, Beer Sheva, Israel
1986 - 1994	Teaching staff Technion Haifa, Israel

# 3. Industrial Engineering Experience

1995 – present - Senior design engineer and owner of the design firmDr. E. Leibovich Consulting Engineers LTD.

#### (b) Significant professional consulting

1995 – 2000 - Consulting and design for IDF project for Designing of communication and special steel and concrete structures.

1995-2000 Design of special buildings: Ben Gurion Airport Terminal 3, with international firm: Ove-Arup and partners, SOM - Skidmore owing Merrill, New – York.

1995-present: design of high-rise concrete buildings.

2000- Present Design Consulting to Motorola Company for designing of communication structures.

2006 – Present Design and consulting to Israeli airport authority.

1995 – Present Design and consulting to MOD and PMO.

(c) <u>Membership in professional/scientific societies</u>

1986 - Member of Engineers' Society - Israel

2008 - Chairman of the Israeli society for earthquake engineering

Affiliate with European and world society for earthquake engineering.

- 1994 EERI Earthquake engineering research institute.
- 2006 IASS WG4 International association for shell structures, working group 4 Mast and towers.

1992- present: Israeli Standard Institute

Chairman of the code committee SI 414 – wind loads on buildings.

Chairman of the code committee SI-1225 part 3 – Design of steel structures – Mast and Towers.

Member of code committee SI 1225 part 4– Design of steel structure for earthquake loads.

Member of code committee SI 2413 – Evaluation and strengthening of buildings for earthquake loads".

Member of code committee SI 413 – earthquake loads on buildings.

Ministry of housing and construction: - Member in the committee for regulation of building design.

Ministry of Economic – Consulting for the Unit of Engineering Registration.

# <u>Educational activities</u>

(a) <u>Teaching Courses</u>

1986 - 2004 Technion - Civil Engineering Faculty

Steel structures

Concrete structures.

Structural dynamics

Structural analysis

2004- present Ben Gurion University

Steel Structures

Earthquake engineering.

2005- present - Sami shamoon college of engineering

Steel Structures

Structural analysis 1

Structural analysis 2

Steel structures project

Tall building design

#### 4. Academic research and development activities

4.1 <u>Previous research and development activities</u> Technion –

Earthquake engineering

Sami Shamoon

Earthquake Engineering

#### 4.2 Present research and development activities

Design of reinforced concrete structure according to Israeli and Euro code standards. Implementation of Euro code standards for Structural design in Israel. Wind loading map for design of Civil engineering structures in Israel.

# 5. Grants and Awards

- (a) <u>Honors, Citation Awards</u> (including during studies)
  - 1988 "The Miriam and Aaron Gutwirth" Fund, Technion, Israel Institute of Technology, The Miriam and Aaron Gutwirth Science-based Industries Center.
  - 1989 "The Miriam and Aaron Gutwirth" Fund, Technion, Israel Institute of Technology, The Miriam and Aaron Gutwirth Science-based Industries Center.

## 6. List of Publications

**6.1 Peer and reviewed papers** 

Leibovich, E., Rutenberg, A., Yankelevsky, D., "Symmetric and Eccentric Pounding of Symmetric Buildings: A Parametric Study, Part I, Linear Response", Technion Israel Institute of Technology - Faculty Pub. 305, Haifa, June 1994.

Leibovich, E., Rutenberg, A., Yankelevsky, D., "On Eccentric Seismic Pounding of Symmetric Buildings", Earthquake Engineering and Structural Dynamics, Vol. 25, 1996, pp. 219-233.

Leibovich, E., Rutenberg, A., "Symmetric and Eccentric Pounding of Yielding Building Structures", Technion Israel Institute of Technology - Faculty Pub. 309, Haifa, Nov. 1998.

Rutenberg A. Leibovich E." On the lateral distribution among structural walls in multistory Buildings" Technion – Israel Institute of Technology, Faculty Publication No. 311, May, 2003.

Rutenberg A. Leibovich E." On the lateral distribution among structural walls in multistory Buildings" New-Zealand society for earthquake Engineering, Vol 35, No. 4, December 2003.

Stephan S., Leibovich E., Yankelevsky D.,Z" Assessment of the Seismic Resistance and Safety of Existing Multistory Residential Buildings" SEI - Structural Engineering International, Journal of the International Association for bridge and structural engineering (IABSE), Vol. 19, No. 2, May 2009. Leibovich E., Rutenberg A. V. Yankelevsky D. Z.,, "Pounding Response of Adjacent Concrete Rods: An Experimental Study", International Journal of Protective Structures, (April 2012).

## 6.2 Books

No Books

## **6.3 Papers and Abstracts – Proceedings of Conferences**

Leibovich, E., Rutenberg, A., Yankelevsky, D., "Pounding Response of Adjacent Concrete slabs: An Experimental Study", 17th European Earthquake Engineering Seminar, September, 1993.

Leibovich, E., Rutenberg, A., Yankelevsky, D., "Seismic Pounding of Adjacent Single Storey Symmetric Structures", 10th European Conference on Earthquake Engineering, Vienna, Austria, August, 1994

Leibovich, E., Rutenberg, A., "Symmetric and eccentric seismic pounding of yielding building Structures", European Workshop on Seismic Behavior of Asymmetric and Set-Back Structures, 4-5 October, 1996, Anacapri, Italy.

Leibovich, E., Rutenberg, A.,, "Lateral Displacement and Seismic separation of Buildings Based on Smooth Displacement Spectra", 11th European Conference on Earthquake Engineering, France, Paris, September, 1998.

Rutenberg, A, Leibovich, E., "What is wrong with the Seismic Code-Design Procedure for Asymmetric Structures?" European Workshop on Seismic Behavior of Asymmetric and Set-Back Structures, October 1999, Istanbul, Turkey.

Rutenberg A. Leibovich E." On the lateral distribution among structural walls in multistory Buildings" Technion – Israel Institute of Technology, Faculty Publication No. 311, May, 2003.

Rutenberg A. Leibovich E." On the lateral distribution among structural walls in multistory Buildings" New-Zealand society for earthquake Engineering, Vol 35, No. 4, December 2003.

Stephan S., Leibovich E., Yankelevsky D.,Z" Assessment of the Seismic Resistance and Safety of Existing Multistory Residential Buildings" SEI journal Vol. 19, No. 2, May 2009.

Stefan Schwarz, Ariel Hanaor, Edward Leibovich "Seismic upgrading of RC beamcolumn assemblies, - Experimental Investigation I", 2009. Edward Leibovich, David Z. Yankelevsky Stephan Schwarz "Assessment of the Seismic Resistance and Safety of Existing Multistory Residential Buildings", 14th ECEE, Macadonia, 2010

R. Farhat, N. Gluck & E. Leibovich "Seismic strengthening of existing buildings examination with non - linear models", 14th ECEE, Macedonia, 2010.

S. Schawarz, A. Hanaor, E. Leibovich, "Experimental Investigation of Seismic upgrade of Non-Ductile R.C Beam Column Assemblies", Fib International Symposium Tel-Aviv, 2013.

### Senior Lecturer since 2014

Leibovich E., "Assessment and seismic retrofit of existing residential buildings", UNESCO-RELEMR XXXVI International Workshop on Seismicity and Earthquake Engineering in the Extended Mediterranean Region, Ravenna, ITALY 2015.

Leibovich E., " Communication Towers protection against sabotage threats", International Association for Shell and Spatial structure, Beijing China, 2017.

Leibovich E., Kosmopoulos A., Fardis M. M, Panagiotakos T., Fardis N., M, " Benchmark assessment of prototype RC building according to EN1998-3" 16th European Conference on Earthquake Engineering, Thessaloniki, June, 2018.

Leibovich E., Leibovich I., "Seismic Resistance of Multi-Story Residential Buildings with Reinforced Concrete Walls Including Openings and Discontinuities. 9<sup>th</sup> European workshop on seismic behavior of irregular and complex structures, Lisbon June. 2020.

#### 6.4 Patents

No patents

### 6.5 Research reports

Rutenberg A. Etrog U, Leibovich E., "Torsional measurement of guyed mast", NBRI, May 1988 (In Hebrew).

Rutenberg A., Leibovich E., "Design examples for steel structures according to SI-1225", NBRI, 1988 (In Hebrew)

Leibovich E., Schawrtz S., Rutenberg A.," economical and engineering aspects of (In Hebrew).

Leibovich E., Sternik M., Gluck J., Yankelevsky D., "Strengthning of typical Israeli residential buildings", NBRI, April, 1990 (In Hebrew).

Adin M., Gluck J., Yasin B., Leibovich E., "Design of circular concrete sections for axial shear and bending", NBRI, Jan, 1990 (In Hebrew).

Leibovich E.," Nonlinear Dynamic for adjacent dynamic structures", Civil Engineering report, Dec. 1990 (In Hebrew).

Leibovich E., Rutnberg A., Yankelevsky D., "Seismic response of adjacent buildings and tensional effects phase 1",NBRI, 1991 (In Hebrew).

Yankelevsky D., Leibovich E., Itzkovitz M.,"Vibration measurements of Sala Dancing floor", NBRI, 1994 (In Hebrew).

Leibovich E., Rutenberg A., Yankelevsky D.," "Seismic response of adjacent buildings and tensional effects – phase 2",NBRI, 1994 (IN Hebrew).

Leibovich A., Rutenberg A., Yankelvesky D., Design recommendation for code requirements to avoid structural failure due to seismic pounding", NBRI, 1995 (IN Hebrew).

Rutenbrg A., Leibovich E., "Design and example for steel structures", NBRI, 1995, (In Hebrew).

Leibovich E., Rutenberg A., Yankelevsky D., "Engineering solution to reduce seismic response between adjacent buildings", NBRI, 1996 (In Hebrew).

Rutenberg A., Scarlat A., Leibovich E., Rabinowitz O., "Effect of small distance between adjacent building, NBRI, 1997 (In Hebrew).

Leibovich E., Yankelevsky D., Segal D.," Damage Evaluation for typical structures during earthquakes", NBRI, 1997, (IN Hebrew).

Segal D., Yankelevsky D., Leibovich E., "Economical approach for damage evaluation of buildings during earthquakes", BNRI, 1997 (IN Hebrew).

Leviatan I., Leibovich E., Scahwartz S., "Design Examples for structures subjected to earthquake according to SI 413", NBRI, 1998. (IN Hebrew).

Yankelevsky D., Scwartz S., Leibvocih E., "Seismic Evaluation of existing buildings – phase 1", NBRI, 2002.

Schwartz S., Leibovich E., Atlas A.," Design Manuel for wind loading", NBRI 2004, (In Hebrew).

Schwartz S., Hanaor A., Leibovich E.," Seismic retrofit of concrete structural buildings – phase 1 – experimental results" NBRI, 2007 (In Hebrew).

Yankalvesky D., Schwartz S., Offir Y., Leibovich E.," Damage Scenarios due to earthquake events – phase 1", NBRI 2009. (In Hebrew)

Leibovich E., Schawartz S. Atlas A." Manuel for SI 414 wind loading on buildings", Sami Shamoon & NBRI, 2011. (In Hebrew)

Gluck M., Farhat R., Leibovich E." Engineering verification of TAMA38-project", Sami shamoon, 2011. (In Hebrew)

Yankalvesky D., Schwartz S., Leibovich E., Offir Y." Building classification in Israel – phase 1 residentail buildings", NBRI 2011. (In Hebrew).

Senior Lecturer since 2014

Schwartz S., Rozenfeld Y., Yankelevsky D., Leibovich E., Hefetz Z., Zilka .,"Economical aspects for reducing earthquake damage of buildings infrastructures during earthquake", NBRI, 2014 (In Hebrew).

Leibovich E., "Standard design requirements for seismic design of reinforced concrete structures" Research report for Ministry of housing and construction, 2014 (In Hebrew)

Leibovich E., "Eurocode design standards review for implementation in Israel" Research report Israeli Standard institute, 2014 (In Hebrew)

Leibovich E., "Worked examples for implementation of SI-413-3 – Evaluation and improvement of existing buildings for earthquakes", Research report for Ministry of housing and construction, 2018 (in Hebrew).

2020

אורית ליבוביץ, אדי ליבוביץ "עמידות סייסמית של מבני מגורים רבי קומות עם קירות הקשחה לא סדירים", הנדסת בנייה ותשתיות, גיליון 88, ספטמבר 2020.

# 7. Academic roles

### (a) <u>Positions in academic administration</u>

- 2006 Present staff member and lecturer Sami Shamoon College of Engineering Beer Sheva, Israel
- 2002 Present Lecturer at Ben Gourion University, Beer Sheva.
- 1986 2002 Teaching staff Technion Haifa, Israel

### (b) <u>Professional functions outside universities/institutions</u>

- 2014 Head of the Israeli Code committee for wind loading on buildings
- 2008 Chairmen of the Israeli association for earthquake engineering.
- 2008 Head of the Code committee for towers and mast Standard Institute of

Israel

Member of the Standard Institution of Israel:
 Steel Structures
 Wind loading on buildings
 Earthquake engineering

# (c) Significant professional consulting

Ben Gurion new airport terminal. Design of very high mast and towers for communication structures. Design of concrete high rise buildings. Seismic strengthening of Existing building for the Israeli airport authority.

### 9. Courses taught

1986 -1994 – Technion Israel Institute of Technology –Civil Engineering faculty Structural analysis II
Reinforced concrete design II
Structural Dynamics I
Design of Steel Structures I
Restressed concrete design
2002- Present – Ben Gurion University
Extreme events I – Seismic structural design of buildings.
Restressed concrete design.
Tall building design.
2006– present – Sami Shamoon college of engineering
Design of Steel Structures.

Structural analysis 1. Structural Analysis 2. Analysis and Design of Tall building. Restressed concrete design.