11 Moshe Levi st. Rishon Le Zion Israel. Tel 03 9534040, 9534051 Fax 03 9616501 E Mail main@s-netanel.com www.eidangroup.com

COMPANY PROFILE

S. Netanel Engineers Consultants Ltd. is an Israeli registered Fire Protection and Life Safety Engineering and Consulting firm, specializes in the fire protection and safety fields as well as systems design. The company is a Subsidiary of Eidan Group, established in 1983.

The company CEO and chief engineer is Dr. Shmuel Netanel, (P.hD) and Fire Protection and Life Safety Engineer, graduated by the University of Maryland USA. The company has 40 technical staff members whom 24 of them are professional and well experienced engineers.

We have been serving our clients for 34 years for efficient design solutions within set budget parameters, under tense delivery schedule.

We deal with wide range of project types, and sizes with complicated Engineering challenges.

S. Netanel Engineers and Consultants Limited, holds the biggest market share of Fire Protection & Life Safety Engineering design and consulting in Israel, some are in Europe Asia and Africa.

The company goal is to assist in designing structure that achieves acceptable levels of fire protection and life safety solutions by the design of specific fire protection and safety program for a project, each designed with flexibility and value engineering cost benefit.

The company has on going contracts with more than 1,200 clients in Israel, and worldwide.

We provide the most professional services to our clients in every country around the world.

Our services Include:

- Fire protection and life safety goal setting
- The Establishment of overall life safety and fire protection master plans
- Design approach negotiations with the local fire protection and safety officials and stake holders.
- Fire protection and safety system criteria and design
- Fire protection and safety features documentation
- Fire protection and safety plan review

- Shop drawing review
- Fire protection and safety systems installation and construction monitoring
- Fire protection and safety systems final test observation
- CFD- Computational Fluids Dynamics:

Top and most advanced engineering and lead of the international market CFD Analysis of fire scenarios using Fire Dynamics Simulator (FDS) to model fire effects. This model will predict specific factors at designated points based upon a given fire scenario.

The company entire facilities are most advanced and computerized.

Life Safety Requirements and design of fire detection, suppression and public address systems are based on the following codes and regulations:

- Israeli building code and regulations
- The Interior ministry.
- The Fire Services law and regulations
- Relevant Israeli standards related to building, fire safety and fire protection system design.

In areas of no standards definition by any local authorities, the design bases on the N.F.P.A requirements.

Design Services

The Company team of experts designs Complete range of fire protection and safety system for all types of new and existing facilities ranging from Hotels, Airports, Hospitals Warehouses High-rise buildings and shopping complexes, Cinema complexes of tens of projecting rooms under one roof, transportation terminals, Public facilities, etc.

Our experienced engineers designs all type of fire detection and suppression systems for all kinds of applications:

- Fire detection and alarm systems.
- Automatic sprinklers systems.
- Gaseous Extinguishing systems.
- Foam Systems.
- Fire protection water supply systems.
- Code and standards expertise.
- Code analysis: NFPA: life safety code, IBC (Israeli building code), NFPA 500 etc.
- Performance based design.
- Fire protection Master plan.
- Water supply and sewage design.

- Specification Developments and cost estimation.
- Negotiation.
- System review and evaluation.
- Construction Observation and supreme supervision.

Airports, Transportation, Trains and Tunnels Facilities

- Three air force basis in Israel: Ramon, Ovda and Nevatim.
- Ben Gurion airport: the entire alignment of the airport, including access ways, water supply systems for fire protection purposes, emergency alignment etc.
- The New Timna Airport south of Israel.
- Terminal 1 Ben Gurion Airport upgrade.
- Montego Bay, Jamaica, International airport.
- Binyaney Hauma Underground train station: Two tunnels and station- **80** meter beneath ground level.
- The New Jerusalem Central bus station.
- Beer Sheva Train station.
- Modiin- Ben Gurion Airport railway, including 3 underground tunnels: 1,600, 300 and 250 meter long.
- Modiin under ground train station
- Tunnels on the east road No. 9 in Jerusalem
- Drom Hakirya Tunnel in Tel Aviv (1,600 meter long)
- La Guardia intersection in Tel Aviv, including a 450 meter long tunnel.

Hotels and resorts

- Mezudat David Jerusalem
- Mamila Jerusalem
- Hayat Jerusalem
- Zion Jerusalem
- Isrutel Colony Jerusalem
- Armon Hanaziv Jerusalem
- Fatal Chain Hotels.
- David Promanent Tel Aviv
- Rothchild twenty two
- Tel Aviv haktana Isrutel
- Bazel Hotel
- Kishle Jaffa
- Crown Plaza Azrieli Center Tel Aviv
- Indego Azrieli Sarona
- Ritz Carlton Herzelia Marina
- Geney Shulamit Eilat and Ashkelon
- Herods Eilat
- Sun Bat Yam
- King Solomon Eilat
- Leonardo club Tiberia U boutique kineret
- Prima Avnat Petach Tikva and Rannana

Industrial Facilities

We provide with:

Complete range of fire protection engineering services and Consulting from initial evaluation to detailed design of special hazard detection and suppression systems, which include:

- Audits and Surveys.
- System design.
- Fire protection master plan.
- Code analysis.
- Negotiation.
- Inspection and testing.

Assembly Facilities

Complete range of fire protection engineering and code analysis services for both new constructions and retrofit of large and small assembly facilities.

Typical assembly facility projects include:

- Audits and surveys.
- Systems Design.
- Fire protection Master plan.
- Negotiation.
- Code Analysis.
- Inspection and testing.
- Timed exit analysis.
- Hazard analysis and fire modeling.

Mixed Used Facilities

The design concept to the following structure sometimes involves conflict of code requirements such facilities of renovation to accommodate multiple uses like public areas, commercial office space and residential uses. Public uses may be retail or assembly such as theaters or restaurants each of these uses presents unique fire safety situations.

A wide range of fire protection engineering activities for new and existing facilities. We provide with;

- Audits and surveys.
- System Design.
- Fire protection master plan.
- Code analysis.
- Negotiation.
- Inspection and testing.
- Management fire safety programs.

Educational Facilities

We offer complete range of fire protection engineering and code analysis services for both new construction of educational structures and retrofit of existing facilities. Typical education projects involve with:

- Audits and surveys.
- System design.
- Fire protection Master plan.
- Code analysis.
- Negotiation.
- Inspection and testing.

Retail Facilities

A fire Protection program must be innovative, flexible and cost effective when involves in downtown business districts or a suburban mall. A single tenant building or multiple tenants in a mixed used facility

We provide complete fire protection engineering and code analysis services for both new construction of retail structures and retrofit of existing facilities typical retail projects involve with;

- Audits and Surveys.
- Systems Design.
- Fire protection and master plan.
- Code Analysis.
- Negotiation.
- Inspection and testing.
- Coordination.

Office Buildings

To compete in today's real estate market, an office building must be adaptable to the changing space requirements and office configurations of its tenants. Fire protection program must be planned carefully in order to interface with other building systems. Typical projects like this include:

- Audits and surveys.
- System design.
- Fire protection master plan.
- Code analysis.
- Negotiation.
- Inspection and testing.

We provide services for the following as well:

- Healthcare Facilities.
- High challenging Fire Protection Hazards.
- Electrical Power Plans.
- Oil and Gas Storage Facilities.
- Solar Farms.
- Hitech and clean buildings.

Partial list of clients and projects.

Partial list of international projects:

- Jamaica Airport terminal.
- "Natbag 2000" Ben Gurion Airport
- Tel Aviv Museum (new wing).
- Light train Jerusalem.
- International Bank- Rothschild Av.
- Wool center Bar Élan University.
- Shopping center, Sofia, Bulgaria.
- Shopping centers in Romania.

Partial list of high rise buildings in Israel (30 floors and up):

- Azrieli center towers (3 towers).
- AZRIELI sarona tower 62 fllors
- Tel Aviv Government offices complex tower.
- International Bank, Rothschild Av Tel Aviv.
- Shaar Ha Ir (City Gate) Ramat Gan (Moshe Aviv tower).
- Zameret Tel Aviv towers A, B and C towers (Elrov).
- Besser towers Bney Brak, Ramat Gan. (Towers 1 and 2).
- Manhattan tower Tel Aviv.
- Frishman Disingof tower Tel Aviv.
- W Tower Tel Aviv.
- Diamond Towers, "Marom Hadar" Givataim.
- "Aviv Ba Zameret "tower, Tel Aviv.

Building/High Rise /Offices

- Ha Shalom Center 50 floors By Kanit Hashalom Azriely

- The government building centers Beer Sheba, Haifa, Tel Aviv, Jerusalem by Ashtrum and Sollel Bonee.
- Clal Building
- The Diamond Exchange Yahalom Building By Aviv company
- City Tower Tel Aviv By Aviv company
- Aderet Business Park Project By Azriely
- Vered Tower Givataim By Isralom
- Vitalgo Business Park By Zisapel and Vitale
- Sea & Sun Project By Mercazei Shlita and Aviv
- Elrov Rothschild tower Tel Aviv By Elrov
- Ganey Herzelia Trade & Apt.
- Agami Village
- Neot Affeka By Aviv company
- Dori Herzelia By A. dori
- Ziger Center Eilat
- Shaar Ha Eir 68 Floors By Aviv/Ossif- Ramat Gan
- Migdaley Zamert Tower Tel Aviv By Elrov
- Rishon City Hall By Ashtrum
- Nof Harets ramat gan, Afeka, Tel Aviv By Neman Eitan
- Nitsba Tower Tel Aviv 68 Floors By Nitsba
- M 1 Building Rishon Le Zion By Kardan Nadlan
- Armon Tower Haifa By Teatraot Israel International

High Tech Building Complexes

- Herzelia Business Park
- Super sol 2000 Complex Netania South
- Vitalgo Complex Tel Aviv
- Har Hotsvim Complex Jerusalem
- Daniv Complex
- Azorey Mallal Complex Petach Tikva
- Azorey Dagan Complex Beit Dagan
- Azorey Carmiel Complex Carmiel
- Zikit Complex (Aviv /Ossif) Tel Aviv

Government buildings

- Ministry of Treasurer
- Military of defense
- Ministry of Health
- Ministry of Interior
- Airport Authorities
- The Israeli police facilities
- Ministry of Energy

- Ministry of housing and construction
- The Agricultural & National Parks.

Air ports facilities

- Natbag 2000
- Terminal A and B
- Hifa Terminal
- Mr. Netanel was the project manager of the 3 military air ports bases in the sraeli Negev i.e. Uvda, Nevatim, and Ramon)

Communication Firms

- Bezeqe
- Cellcom
- Motorola
- Pele phone
- Yes Satellite Center Cfar Sabba

Shopping Centers

- Ha Shalom Azrieli Center
- Ayalon Kanit
- Bat Yam Mall
- Giron Center
- Down Town Center
- American Mall
- Lev Mall Petach Tikva
- Shopping Center Kanyon Hanegev
- Super sol Chain Department stores
- Co-op Supermarkets Chain stores
- Transportation Center
- Holon Mall
- Aviv Center Mall
- Hadera Mall
- Mamila Trade center
- Marina shopping center Hezekiah
- Haifa Mall
- Kenyon Haustella Haddam Éclat
- Kenyon Rennin Banana

Hotels

- Sunrise Eilat
- Hayat Regency Jerusalem
- Zion Jerusalem

- Ganey Shulamit Éclat and Sakhalin
- Grand Hotel Éclat
- Paradise Jerusalem and Ashkelon and Eilat
- Oazis
- Gigot Jerusalem
- Sinton Bat Yam
- Cocav Hayam Cizeria
- Nof Arad
- Hilton Mamila
- Levi brothers Dead sea

Hospitals And Senior Citizens centers

- Wolfson hospital Holon
- Children hospital Hadasa Jerusalem
- Senior Citizens Beer Sheba
- Migdaley Ha yam Kffar Sabba
- Amigur Senior Citizens
- Gil Paz Kffar Sabba
- Nordia senior citizen village
- Ad 120 Kfar Sabba
- Aazorey Yam Hatichon Kfar Sabba

Theaters/ Cinemas

- Israel Theaters- more than 40 theaters around Israel
- G.G. Cinemas more than 40 theaters around Israel
- Rishon Le Zion theater Center (Hechal Ha Tarbut)

Educational Institutes

- Bar Eilan University
- Pre Engineering School Ammal
- Education Center Urim
- Lady Davis
- Autistics Village
- Ben Gurion University Beer Sheva
- Bezalel Art College
- School Of Management Rishon Lezion
- Ort Netania
- Tel Aviv University
- Beer Sheva University
- The Thechnion Institute Haifa

Communities centers/Fair Ground/Stadiums

- Beit Islingan Givataim

- Neve Sedq Dancing Music center Jaffa
- Pais center Davis
- Water Park Yavne and Bar nea ashekelon
- Superland Amusement Park Rishon Le Zion
- Rishon Stadium
- Sport Center macabi Rishon
- Teddi Stadium Jerusalem
- Beer Shebba Center
- Macabi Tel Aviv Stadium Nokia Stadium
- Ness Ziona Stadium
- Magnezium Plant Bromide Dead Sea
- Port Authoreties
- Machteshim Beer Shebba
- Haifa Chemicals
- Nazareth Vehicles Industries
- Elisra
- Orlight
- Sano
- Extra Plastic
- Telrad
- Osem
- Mekorot
- Tadiran
- Amraz
- Tarra
- Hagalil Wood

Oil and Gas Plant

- The Israeli Gas Companies: Supergas, Amisragas, Pasgas/Petrolgas, Dorgas
- The Israeli oil companies
- Mallam
- Rishon Vineyards

Military bases and Facilities

- Air Force
- Naval
- Intelligence
- Maintenance and storage

Resume

Shmuel Netanel F.P.E, B.Sc. Ph.D (CE)

Owner and Chief Engineer.

Owner, MD and Chief Engineer.

14 Years of experience in consulting, Engineering Design and project managing at the Israeli M.O.D as project officer and design manager for the new Israeli Negev Air Bases (Rammon Ovda and Nevatim).

34 Years of intensive safety and fire protection engineering practice as the owner of the leading fire protection engineering firm in Israel practice as a life safety and loss prevention consultant engineer in Israel.

Designer of hundreds of automatic fire protection systems, alarm and suppression systems, Sprinklers, Halon, and FM 200, CO2, Foam, and special applications. Consulting and engineering design for safety and fire protection systems in Israel, LPG farm, petroleum and hydrocarbon, Solar farms, Power Plans Natural Gas Turbine. Industrial, Public and Privet facilities and High Rise buildings. Assembly and Sport Arenas.

Associate Professor for MBA in Safety Engineering at Ben Gurion University.

Education;

Fire Protection and Life safety Engineering B.Sc. 1983 University of Maryland USA. Doctorate of Science in Civil Engineering AlU University USA. Arbitrary by the Israeli Architects and Engineers Association.

Building Surveyor by RICS UK, - Building Surveying (Associate and Chartered)

Memberships and Registration;

- The National Fire Protection Association (N.F.P.A) Aviation Section, building and Architect and Industrial Section
- The Society of Fire Protection and safety Engineers (S.F.P.E)
- The IACIE Israeli Association of Engineers and Architects Chairperson of Fire Safety Engineering Section 2001-2016.
- The IOCEA Chairperson of the Fire Safety Engineering, 5/12/20175/12/2017 1999-2015
- The Israeli Standards Institute. Chairperson of the Technical Comity of Building Safety (116)
- The Israeli Standards Institute Chairperson of the technical committee for industrial Safety process.(1605)
- Member of the Technical committee of Fire Protection equipment Standards. (412)
- Chairperson of the Educational Institutes Safety (previous)

- Member of several Experts Comities: HAVAC Fire Safety, Smoke Control, Commercial kitchen facilities, Sprinklers system, Suppression systems, Portable extinguishers systems and others.
- Member of the expert's comity of the Israeli Building regulations of Building Fire Safety.
- Member of the CTBUH
- The Chairperson and Initiator of the Israeli NFPA-IL

Experience:

Owner and Chief Engineer, Eidan Safety Eng, Group Ltd. 1982-today Chief planning officer at the Israeli air force Negev air bases 1977 1980 Air Force Major Chief operation and ground Defense forces



