

CURRICULUM VITAE

NAJJAR, Samer. B.Sc. (Eng.) M.Sc. (Eng.) PhD (Eng.) (Dr.)

Personal Details

Date of Birth	24-01-1959 (Male/Married)
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Qualifications

Degree	Thesis
PhD (1990-1994) University of Sheffield	<p><i>Three-Dimensional Finite Element Analysis of Space Frames in Fire</i></p> <ul style="list-style-type: none">• The aim of this work was to develop a sophisticated analytical model for columns within three-dimensional assemblies in fire conditions.• A simplified approach for the analysis of isolated columns in fire was developed. This model is based on the Perry-Robertson approach to defining critical loads of imperfect columns at ambient temperature. The fire conditions were implemented as another imperfection.• A three-dimensional finite element model has been developed for the analysis of frames in fire conditions.• The finite element formulation took into consideration the geometrical and material nonlinearities.• The analysis can handle any three-dimensional skeletal steel structure.• The model has been validated extensively against a wide range of analytical and experimental results in the literature.• A large number of analyses were undertaken in order to produce general results and trends to help the development of the British Standards in this field.• The analysis has been extended to include composite beams within the structural assembly.
MSc. (Eng.) (1986-1987) University of Sheffield	<p><i>Development of A Pre-processor for a Finite Element Package (MSOILS)</i></p> <ul style="list-style-type: none">• Development of a finite element package for foundations calculations.• Design of graphic interface for this software.• Development and optimising of numbering scheme.• Design of informative output of the results.
BSc. (Eng.) (1976-1982) University of Jordan	<p><i>Design of A Multi-Storey Reinforced Concrete Building</i></p> <ul style="list-style-type: none">• Incorporating the Arab standards for reinforced concrete design.• Comparison with British standards for RC design• Production of full detailed blueprint for construction purposes.

Employment

Employer	Job Title	Job Description
Palestine Technical University (PTUK) (Sep 2015-Date)	Head of Civil Eng Dept	<ul style="list-style-type: none"> • Head of "Civil Engineering Dept." • Implementing new program of "Construction Engineering"
Palestine Technical University (PTUK) (Jan 2015-Aug 2016)	Director of KCLTI	<ul style="list-style-type: none"> • Director of "Kadoorie Center for Learning & Teaching Innovation" KCLTI
Palestine Technical University (PTUK) (2010-2015)	Dean of Planning, Development & Quality	<ul style="list-style-type: none"> • Running the daily business of the Development, Planning and Quality Deanery. • Design and follow-up of strategic, development and action plans. • Follow-up of all current and future university projects • Drawing Academic Staff, Promotion and other regulations for the university • In charge of introducing entrepreneurial learning integration in higher education • Coordinator of FP7 projects in the university • Chairing many University committees
Palestine Technical University (PTUK) (2009-2010)	Dean of Technical College	<ul style="list-style-type: none"> • Running the daily business of the Technical Intermediate College • Supervising and leading curriculum review and enhancement of academic programs within the college. • Supervising and participating in the development of various new programs (BSc and Diploma) throughout the university
Novel Computers Ltd. (1998-2009)	IT Director	<ul style="list-style-type: none"> • Software and hardware configuring of PC systems. • Providing IT consultations, solutions and training for various business firms. • Design of scientific systems with 64-bit architecture and applications. • Design and providing solutions for advanced engineering needs. • Consultations for implementing engineering courses on PC systems.

<p>University of Sheffield Civil Engineering Dept. (1994-1998)</p>	<p>Research Associate</p>	<p><u>Research:</u></p> <ul style="list-style-type: none"> • Finite element analysis of concrete caissons (concrete boxes to protect ports and other marine structures) using ANSYS, for developing EU guidelines and standards. Full analytical results were produced and presented to EU standard bodies to be incorporated in their final specifications. • Finite element modelling of fibre-reinforced plastics (FRP) reinforced concrete beams using commercial software. (ABAQUS, ANSYS and DIANA). Analytical results showed the feasibility of incorporating the FRP reinforcement in harsh environmental conditions, where steel reinforcement deteriorates fast. These harsh conditions prevail in high-temperature, humid and coastal areas. • Studying the limitations of finite elements software in non-linear problems in general and the concrete model in particular. The study concluded the need to improve the non-linear model of the concrete in those softwares. • Preliminary investigation of the effects of high temperatures on FRP reinforcement bars. • Testing of various FRP reinforced concrete units for pre-cast industry. <p><u>Teaching:</u></p> <p>Various duties as in the previous job.</p>
<p>University of Sheffield Civil Engineering Dept. (1992-1994)</p>	<p>Teaching Assistant</p>	<p><u>Teaching:</u></p> <ul style="list-style-type: none"> • Stiffness Matrix Analysis (3rd year.) • FORTRAN & QBASIC Programming (1st year.) • Structures Laboratory (1st yr.) • Structures Design Classes (2nd & 3rd years) • Numerical Analysis Programming in FORTRAN & QBASIC (2nd year.) • Engineering Drawing CAD (1st year.). <p><u>Research:</u></p> <ul style="list-style-type: none"> • Pre-test FE modelling for fire tests within Cardington Frame facility (a steel facility for real scale testing). • Effect of semi-rigid connections on fire tests. • Design of testing rig for steel characteristics at elevated temperatures. <p><u>Administrative:</u></p> <p>Student evaluation of the course using network software.</p>
<p>Far'a Valley Irrigation Committee (1987-1989)</p>	<p>Supervising Engineer</p>	<ul style="list-style-type: none"> • Designing the structural parts for an irrigation project. • Supervising structural and surveying parts of a 20 km underground water pipe project. • Production of final plans for the project.

Diab Construction Co. (1982-1983)	Site Engineer	<ul style="list-style-type: none"> • The construction of a three-storey reinforced concrete school building (3500 m²). • Major maintenance of an old building including laying new foundation.
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Other Information

Languages	Arabic, English, Basic French
Computing Skills: Programming	FORTRAN developmental
Machines	Mainframe (IBM and PRIME) SUN workstations SG system PC's
Software FE Scientific Packages	Graphics: AutoCad Office Suites. ANSYS, ABAQUS, DIANA and 3DFIRE.

Publications

- 1 S. NAJJAR and I. BURGESS **"Perry Analysis and the Failure of Steel Columns in Fire"**
A paper presented at *Stress Analysis and the Personal Computer*-The Institute of Physics May 1992.
- 2 I. BURGESS and S. NAJJAR **"A Simple Approach to the Behaviour of Steel Columns in Fire"**
Journal of Constructional Steel Research, Vol. 31, No. 1, pp. 115-134 1994.
- 3 S. NAJJAR and I. BURGESS **"Non-Linear Analysis of Steel Frames in Fire Conditions"**
Journal of Engineering Structures, Vol. 18, No. 1, pp. 77-89, 1996
- 4 S. NAJJAR, I. BURGESS and R. Plank **"Rational Approaches to Designing Steel Structures for Fire Resistance"**
4th Kerensky International Conference on Structural Engineering, Singapore, pp 87-94, 1994.
- 5 S. NAJJAR, I. BURGESS and R. Plank **"Non-Linear Studies of Cardington Composite Frame Using 3DFIRE"**
Civil Engineering Dept. Report No. DCSE/93/S/05 1993
- 6 S. NAJJAR and I. BURGESS **"Non-Linear Analysis of Steel Frames in Fire Conditions"**
Civil Engineering Dept. Report No. DCSE/94/F/01 1994.
- 7 S. NAJJAR **"Three-Dimensional Analysis of Steel Frames in Fire Conditions"**
PhD thesis, University of Sheffield, March 1994.
- 8 S. NAJJAR et al **"Testing and Analysis of TARMAC Kriblok Senior System Units"**
Civil Engineering Dept. Report No. CCC/94/0012A Aug. 1994 (Confidential)
- 9 S. NAJJAR, K. Pilakoutas and P. Waldron **"Testing of Anda-Crib System Stretcher Units"**
Civil Engineering Dept. Report No. CCC/94/0013A Aug. 1994 (Confidential)
- 10 S. NAJJAR, K. Pilakoutas and P. Waldron **"Assessment of the Concrete Model in ANSYS50"**
Civil Engineering Dept. Report No. CCC/94/0015B April 1995 (Confidential)
- 11 S. NAJJAR, K. Pilakoutas and P. Waldron **"F E Analysis of GFRP and Steel Reinforced Beams"**
Civil Engineering Dept. Report No. CCC/94/0026A May 1995 (Confidential)
- 12 S. NAJJAR, K. Pilakoutas and P. Waldron **"Testing and Analysis of Pre-cast Cladding Panels"**
Civil Engineering Dept. Report No. CCC/94/0047A Dec. 1996 pp 31(Confidential)
- 13 S. NAJJAR, K. Pilakoutas and P. Waldron **" Testing and Analysis of BSI Precast Panels and Columns "**
Civil Engineering Dept. Report No. CCC/96/0048A Nov. 1996 (Confidential)
- 14 S. NAJJAR, K. Pilakoutas and P. Waldron **"Finite Element Analysis Of GFRP Reinforced Concrete Beams"**
Third Int. Symposium on Non-Metallic (FRP) Reinforcement for Concrete Structures, Japan Concrete Institute, Sapporo, Japan, Vol. 2 pp 519-526 Oct. 1997
- 15 S. NAJJAR, K. Pilakoutas and P. Waldron **" Study Cases of FRP Reinforced Concrete Elements "**
Third Int. Symposium on Non-Metallic (FRP) Reinforcement for Concrete Structures, Japan Concrete Institute, Sapporo, Japan, Vol. 2 pp 535-542 Oct. 1997