PERSONAL INFORMATION

First and second name: Mehrez Jamei

03/01/1962 in Kairouan City (Tunisia)

Married and Father of three children

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google scholar: https://scholar.google.com/citations?view_op=list_works&hl=fr&user=70WGpuwAAAAJ

ResearchGate: https://www.researchgate.net/profile/Mehrez-Jamei

Current position:
Full Professor in Civil Engineering Department, Northern Border University

SCHOLARSHIP AWARDS and GRADUATE DIPLOMAS

2010 "*HDR / Doctor of Science*", National Engineering School of Tunis, Tunisia.

***Topic**: Hydro-mechanical behavior of Geomaterials*

1993 *P.H.D.* Thesis from *University of Joseph Fourier Grenoble (France*). The PHD was prepared in 3S Laboratory. It was obtained with Distinction (honorable with congratulations of the jury)

***Topic**: The plasticity theory applied to unsaturated soils: application for civil engineering works stability*

1989 Master Degree (DEA), from University of Joseph Fourier Grenoble, prepared in 3S Laboratory (France), and obtained with honorable.

Topic: Study of the Soil-Inclusion Interface Behavior.

1988 ***B.Sc.*** degree in Hydraulic and Civil Engineering from the National Engineering School of Hydraulic and Mechanics of Grenoble, Polytechnic (INPG), France.

1982 *High school diploma* (Scientific section)

PREVIOUS POSITIONS and PROFESSIONAL ACTIVITIES

Since 2016: Full Professor in the Engineering School of Tunis, University Tunis Elmanar, Tunis (in detachment)

2010-2015 Associate Professor, University Tunis Elmanar, National Engineering School, Tunis

1996-2009 Assistant Professor, University Tunis Elmanar, National Engineering School, Tunis

2002-2015 Associate Professor visitor, University Joseph Fourier, POLYTECH, France

1993-1995 Associate Professor; University of Joseph Fourier in Grenoble, France

2011-2015 Research visitor, University of Lyon, National Engineering School of Saint Etienne, France

ADMINISTRATIVE RESPONSABILITIES

2004-2007 Chairman of the civil engineering pedagogic unity; ENIT School, Tunis

2004-2016 Chairman of the Research Geotechnical team; ENIT School, Tunis

TEACHNING COURSES

- National Engineering School of Tunis (ENIT)
  PROVIDED COURSES: NUMERICAL ANALYSIS, STRUCTURES, STRENGTH MATERIALS, STRUCTURES DYNAMIC, SOIL MECHANICS AND FOUNDATIONS, SOIL DYNAMICS, SOIL IMPROVEMENT, ADVANCES STRUCTURES, MECHANICS OF CONTINUUM MEDIA, MATHEMATICAL AND OPTIMIZATION METHODS.

- Northern Border University, College of Engineering (Saudi Arabia)
  PROVIDED COURSES: HYDRAULIC, FOUNDATIONS, GEOTECHNICS, ADVANCED SOIL MECHANICS, SPECIAL TOPICS IN CIVIL ENGINEERING

- Joseph Fourier of Grenoble University (**POLYTECH** Grenoble).
  PROVIDED COURSES: SOIL MECHANICS, FOUNDATIONS AND YIELD DESIGN THEORY
- Joseph Fourier of Grenoble University (**IUT** Grenoble).
  PROVIDED COURSES: FLUID MECHANICS, MATHEMATICS, COMPUTER SCIENCE

- National School of Engineers of Saint-Etienne **(ENISE) (École nationale d'ingénieurs de**

Saint-Étienne (ENISE) - Ecole interne de Centrale Lyon): Lectures and Conferences on the Mechanics of Deformable materials: Experimental and modeling approaches.

- Visiter Professor - Polytech (Université centrale, Tunis)
  PROVIDED COURSES: NUMERICAL METHODS IN ENGINEERING FIELD: DISTINCT ELEMENTS METHOD AND ITS NEW FIELD'S APPLICATION

- **Supervisor of the academic graduate capstone projects (several dozens of capstone projects)** in all the previously academic institutions, mainly in ENIT school (Tunisia) and in Northern Border University (Saudi Arabia). The capstone projects have concerned many civil engineering fields: Structures, Reinforced concrete, Foundations, Roads, Laboratory and field Geotechnical tests, Hydraulic works, Landfills, …

RESEARCH ACTIVITIES

1. KEY QUALIFICATIONS

Through research and consulting, Professor Mehrez Jamei has acquired broad experience within large geotechnical works in extreme cases, as risk and reliability to foundations, slopes, reliability-based design, dam design and offshore geotechnical installations in relation with earthquake and liquefaction, geosynthetics and its using in landfills and roads as solutions to reinforce the soil with karstic cavities. The modeling of such complex problems was one of high skills acquired from the resolving of coupling phenomena of thermal-chemical and hydro-mechanical.

Through actual interested research, the orientation is the **environmental field in relation with the climatic changes** and their effects on civil engineering works stability.

2. MAJOR FIELDS OF WORK RELATED TO:

- **Modeling**

❖ Modelling using the finite elements technique (FEM) and the distinct elements method (DEM) and the theory of homogenization in porous Media.

❖ Unsaturated soil behavior: Elasto-plasticity behavior, water retention, permeability, desiccation des sols fins. Desiccation as one of major consequences of high drying induced by the new climatic changes in the arid and semi-arid countries.

- ❖ The modelling of desiccation using new methods as cohesive method, Extended Finite Elements (EXFEM) and DEM.
- ❖ The homogenization theory as a fundamental theory to assure the passage from the micro-scale to the macro-scale.

- **Geotechnical Works and Hazards**

- ❖ Landslides in the unsaturated soils particularly in the cases of fine soils and stiff clays
- ❖ Reliability-based of geotechnical foundations and structures, including shallow foundations, piles, slopes, road structure and landfills.
- ❖ Hazard, consequence and vulnerability assessment
- ❖ Contaminated soils: Experimental investigation and modeling
- ❖ Analysis and interpretation of laboratory and in situ tests in Geotechnics field, especially in the unsaturated soils and for other unsaturated geomaterials.
- ❖ Eco-construction: Experimental investigation and modeling.
- ❖ The earth material to substitute partially the concrete. Use of earth material construction to assure a high hygro-thermal comfort.
- ❖ Global impact of climatic changes on the environmental cycles of wetting-drying in arid and semi-arid countries.
- ❖ Environmental Constructions and Energy production by associate building systems.
- ❖ Reliability-based design of Landfill in relation with the pollution of soil: Environmental challenges.

3. SELECTED PUBLICATIONS

Publications in Journals:

- Moez SELMI, Yahya ALASSAF, Mariem KACEM, **Mehrez JAMEI**, 2023 "Compressibility behavior of Conditioned Sandy Clay considering the Physical Degradation of Foam: Tunneling Issue", Journal of Sustainable Mining, October 2023, accepted, in press.
- Fakher Hamrouni, Yahya Elassaf, Houcem Trabelsi, **Mehrez Jamei**, 2023, "Numerical analysis of rainfall-induced slope instability using a reduced-scale model", Magazine of Civil Engineering, September 2023, accepted, in press.

- Trabelsi Houcem, Yahya Alassaf, **Mehrez Jamei** & Sebastia Olivella, 2023, Desiccation cracks prediction using a 3D finite elements model, International Journal of Geotechnical Engineering , Volume 17, 2023 - Issue 2 DOI: 10.1080/19386362.2023.2202595.
- Fatma Louati, Houcem Trabelsi, Yahya Alassaf, **Mehrez Jamei**, Said Taibi; 2023, Bulletin of Engineering Geology and the Environment (2023) 82:220; https://doi.org/10.1007/s10064-023-03202-7
- I. Hamrouni, T. Ouahbi, A. El Hajjar, S. Taibi, **M. Jamei**, H.Zenzri, 2022, Water vapor permeability of flax fibers reinforced raw earth: Experimental and micro-macro Modeling. European Journal of Environmental and Civil Engineering, Sept, 2022: DOI:10.1080/19648189.2022.2123857.
- **M. Jamei** , Y. Elassaf , A. Ahmed , A. Mabrouk, 2022, Fibers reinforcement of the fissured clayey soil by desiccation, Magazine of Civil Engineering. 2022. 109(1). Article No. 10914, DOI: 10.34910/MCE.109.14.
- I. Hamrouni, T. Ouahbi, S. Taibi, **M. Jamei**, H.Zenzri, Hygro-thermal properties of raw earth building material, 40émes Rencontres Universitaires de Génie Civil, Lille, 23-25 mai 2022, Academic Journal of Civil Engineering.
- I. Hamrouni, T. Ouahbi, S. Taibi, **M.Jamei**, H.Zenzri, O. Crumeyrolle, Hygro-thermal behavior of raw earth concrete, Conférence francophone internationale NoMaD, Montpellier, 16 – 17 novembre 2022, Academic Journal of Civil Engineering.
- Yousr Koobaa**, Mehrez Jamei** "Compression and shear strengths of sandy limestone and the role of the porosity: a case study", Soils and Rocks, March 2021.
- F. Louati, A. Mabrouk, H. Trabelsi, **M. Jamei** & H. Zenzri "Flow exchange and unsaturated permeability of cracked clay: experimental and modelling", European Journal of Environmental and Civil Engineering, October 2021.
- Fakher Hamrouni, Houcem Trabelsi, **Mehrez Jamei**, "Numerical Analysis of the Drilled Horizontal Drains Efficiency in Physical Slope Model: The Role of the Soil Water Retention Property", Geotech Geol Eng, June 2021, https://doi.org/10.1007/s10706-021-01894-w
- **Mehrez Jamei,** Yahya Elassaf, Anwar Ahmed, Abdelkader Mabrouk "Natural Fibers Reinforcement of the Fissured Fine Soil: Some Experimental Evidences, accepted of applied magazine of civil Engineering, mai 2021, doi:10.34910/MCE –MCE/2022#01(109)
- Yousr Koobaa**, Mehrez Jamei**, "The Role of Porosity on the Mechanical Resistance of the Rock of a Monument: The Case of the Punic Caves in El Haouaria caves", International Journal of Innovative Technology and Exploring Engineering (IJITEE), Dec. 2019.
- Fakher Hamrouni, Houcem Trabelsi, **Mehrez Jamei** & Sebastia Olivella, "Numerical analysis of landslides caused by rainfall in a reduced physical slope model", European Journal of Environmental and Civil Engineering, March 2019.
- H. Ben Jemaa, L. Elghezal**, M. Jamei**, "The œdometric compression behavior of expanded clay including the crushability of single particles", Granular Matter, accepted Dec., 2019.

- H. Ben Jemaa, L. Elghezal**, M. Jamei**, “Micro-mechanical properties of expanded clay particles”, International Journal of Innovative Technology and Exploring Engineering (IJITEE), Sept. 2019.
- Moez SELMI, Mariem KACEM, **Mehrez JAMEI**, Philippe DUBUJET “Experimental and Modeling of Shear Mechanical Behavior of Soil Conditioned with Foaming Agent”, International Journal of Innovative Technology and Exploring Engineering (IJITEE), Oct. 2019.
- Moez SELMI, Mariem KACEM, **Mehrez JAMEI,** Philippe DUBUJET “Physical Foam Stability of Loose Sandy-Clay: a Porosity Role of the Conditioned Soil", Water, Air, & Soil Pollution, Dec. 2019.
- Fatma Louati, Houcem Trabelsi**, Mehrez Jamei** & Said Taibi, “Impact of wetting-drying cycles and cracks on the permeability of compacted clayey soil”, European Journal of Environmental and Civil Engineering, Dec. 2018.
- Houcem Trabelsi, Enrique Romero**, Mehrez Jamei** , “Tensile strength during drying of remoulded and compacted: The role of fabric and water retention, Applied Clay Science, 162 (2018), 57-68.
- M. Chebbi, H. Guiras and **M. Jamei** «Tensile behavior of *Experimental compacted clay reinforced with natural and synthetic fibers: Effect of initial Compaction conditions*». Under revision, European Journal of Environmental and Civil Engineering, Oct., 2017.
- M. Selmi, M. Kacem, **M. Jamei**, P. Dubujet «Effect of an Added Foaming Agent on Hydro-Mechanical Properties of Soil», International Journal of Environmental, Chemical, Ecological, Geological and Geophysical Engineering, Vol: 10, N° 7, 2016.
- **M. Jamei**, H. Guiras, S. Olivella «Analysis of slope movement initiation induced by rainfall using the Elastoplastic Barcelona Basis Model», European Journal of Environmental and Civil Engineering, 2015, pp. 1-26. (DOI. 10,1080/19648189.2014.996670).
- H. Trabelsi, **M. Jamei**, H. Zenzri, S. Olivella «Crack patterns in clayey soils: Experiments and modeling » Int. J. Numer. Anal. Meth. Geomech. (2011), Published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/nag.1060.
- **M. Jamei**, H. Guiras, Y. Chtourou, A. Kallel, E. Romero, I. O. Georgopoulos «Water retention properties of perlite as a material with crushable soft particles, Engineering Geology 122 (2011) 261–271.
- L. Elghezal, **M. Jamei**, I. O. Georgopoulos «DEM simulations of stiff and soft materials with crushable particles: An application of expanded perlite as a soft granular material», Granular **Matter, Granular Matter (2013) 15:685–704.**
- **M. Jamei,** P. Villard, and H. Guiras «Shear Failure Criterion Based on Experimental and Modeling Results for Fiber-Reinforced Clay», INTERNATIONAL JOURNAL OF GEOMECHANICS, ASCE/ NOVEMBER/DECEMBER 2013, Vol. 13, N° 6
- Trabelsi, H., **Jamei, M**., Guiras, H., Hatem, Z., Romero, E., & Sebastia, O. «Some investigations about the tensile strength and the desiccation process of unsaturated clay». The European Physical Journal (EPJ), Vol. 6, p. 12005. EDP Sciences, (2010).
- M. Bouhlel, **M. Jamei**, C. Geindreau «Microstructural effects on the overall poroelastic properties of saturated porous media», *Modelling Simul. Mater. Sci. Eng.*, 18 (2010), pp. 1-22.

- Ammeri A., **Jamei M.**, Bouassida M., Plé O., Villard P., Gourc J.P, «Numerical study of bending test on compacted clay by DEM: tensile strength determination». *International Journal of Computer Applications in Technology*, 2009-Vol. 34, N° 1, pp. 13-22.
- **M.Jamei**, H. Guiras, K. Ben Hamouda, M. Hatira, S. Olivella «A study of the slope stability in unsaturated marly clay», *Studia Geotechnica et Mechanica*, 2008, Vol. XXX, N° 1-2, pp. 95-106.
- H. Guiras, **M. Jamei** « Prise en compte du gonflement du sol dans le dimensionnement d'une fondation superficielle », *Revue Marocaine de Génie Civil*, N° 105, 1er Trimèstre 2004. pp. 35-40. ISSN. 0851-1446.

Papers in International Conferences (with full paper review)

- I. Hamrouni, T. Ouahbi, O. Crumeyrolle, S. Taibi, M. Jamei, H.Zenzri **(2022)**, Comportement hygrométrique du béton de terre crue et du bloc de terre compactée (BTC), 5ème colloque International « Sols non saturés » UNSAT'Ouargla, 15 et 16 Mars 2022, **Algérie Équipement**
- **M. JAMEI**; S. OLIVELLA; H. GUIRAS; R. BEN AMOR **(2013)** "Slope movements induced by precipitations", First International Conference on Landslides' Risk", Tabarka (Tunisia), 14, 16 March 2013.
- El GHEZAL L., **JAMEI M**; ZENZRI H., Nicot F. **(2012)** "·A discrete element method to predict desiccation cracks", 2ème Colloque International sur les sols non saturés, Alger, 05, 06 novembre 2012.

- L. Elghezal, **M. Jamei**, (**2010**), «The macroscopic behavior of the granular medium with soft particles», *Proceeding of the Third Euro-Mediterranean Symposium on Advances in Geomaterials and Structures*, pp. 823-828, Djerba, Tunisia.
- H. Trabelsi**, M. Jamei**, H. Zenzri, S. Olivella, E. Romero (**2010**) «Crack dynamics and water flow in cracking soils» *Proceeding of the Third Euro-Mediterranean Symposium on Advances in Geomaterials and Structures,* pp. 713-720, Djerba, Tunisia.
- H. Trabelsi, **M. Jamei**, H. Guiras, H. Zenzri, E. Romero, S. Olivella (**2010**) «Some investigations about the tensile strength and the desiccation process of unsaturated clay», *ICEM 14 – 14th International Conference on Experimental Mechanics, Poitiers, France, Edited by Fabrice Brémand; EPJ Web of Conferences*, pp. 1-8, Volume 6, id.12005.
- H. Guiras, **M. Jamei** (**2009**), «The water retention curve for materials with deformable particles: experimental study and predicting», *Colloque international sur les sols non saturés et Environnement*, Tlemcen, Algérie, 27-28 Octobre 2009.
- **M. Jamei**, H. Guiras. (**2009**), «The unsaturated Elastoplastic modelling for the slope's instability prediction», *Colloque international sur les sols non saturés et Environnement*, Tlemcen, Algérie, 27-28 Octobre 2009.

- N. Mokni, S. Olivella**, M. Jamei**, X. Li, E. Valcke (**2008**) «Deformation in porous media containing salts» Proceeding of the *Second Euro-Mediterranean Symposium on Advances in Geomaterials and Structures*, Hammamet 3-5 May, Tunisia.
- A. Ammeri, M. Bouassida, **M. Jamei**, P. Villard, J.P. Gourc (**2008**) « Détermination expérimentale de la résistance à la traction par fendage des sols fins », International Conference in Geotechnical Engineering, Hammamet, 24-26 Mars, 2008.
- Ammeri A., Bouassida M., **Jamei M**., Villard P., Gourc J.P, (**2008**), "Détermination expérimentale de la résistance à la traction par fendage des sols fins", *Proceeding of the Second Euro-Mediterranean Symposium on Advances in Geomaterials and Structures*, 24th - 26th March.
- Georgopoulos I. O., Papanicolopulos S. A., Ammeri A., Elghezal L., Stefanou I., **Jamei M**., Vardoulakis I., Kallel A., (**2008**), «Expanded Perlite as a Model Material to Study the Role of Grain Stiffness and Strength in Granular Media», *Proceeding of the Second Euro-Mediterranean Symposium on Advances in Geomaterials and Structures*, pp. 727-733, Hammamet, Tunisia.
- Ammeri A., Bouassida M., **Jamei M**., Villard Pascal, Gourc J.P., (**2007)**, "Interpretation of the split test carried out on cohesive soil", *Actes du 14ème Congrès Régional Africain de Mécanique des Sols et de Géotechnique*, Yaoundé, Cameroun,10-13 décembre.
- **M. Jamei**, H. Guiras, N. Mokni (**2007**) «A retention Curve Prediction for Unsaturated Clay Soils», *Experimental Unsaturated Soil Mechanics*, pp. 1-6, Hammamet, March 2007, Weimar, Germany. (Edit Springer Proceeding in Physics). pp. 378-386.
- A. Ammeri, M. Bouassida, **M. Jamei**, P. Villard, J.P. Gourc (**2007**) « Analyse de l'essai de fendage réalisé sur des sols fins, étude expérimentale », Congrès Régional Africain de Mécanique des sols et de Géotechnqiue, Yanoundé, Cameroun, 10-13 Décembre, 2007.
- **M. Jamei**, H. Guiras, K. Ben Hamouda, M. Hatira (**2007**) «A study of the slope stability in unsaturated marly clay soil", *18éme Congrès Français de Mécanique, Grenoble*, France, 27-31 Août, 2007.
- **M. Jamei**, P. Villard, K. Zaghouani, F. Cadilhac (**2006**) «Prevention of risk due to karstic cavities detected in a recent motorway in Tunisia using geotextiles», *Eighth International Conference on Geosynthetics*, September 18-22, 2006, Yokahama, Japan.
- **M. Jamei**, H. Guiras, K. Sebri (**2006**) «A numerical model to simulate laboratory swelling tests», *First Euro-Mediterranean Symposium on Advances in Geomaterials and Structures*, pp. 1-6, Hammamet, 3-5 May, Tunisia.
- Ammeri A., **Jamei M.**, Guiras H., Bouassida M., Villard Pascal, Ple Olivier, Camp S., Gourc J.P., (**2006)**, «A numerical study of compacted clay tensile strength by discrete element modelling: A bending test application», *First Euro-Mediterranean Symposium on Advances in Geomaterials and Structures*, pp. 65-70, Hammamet 3-5 May, Tunisia.
- **M. Jamei**, M. Hatira et J. Monnet, (**2005**) «About pressiometer and undrained laboratory tests in ordrer to shallow foundations calculation», Symposium International ISP5/PRESSIO 2005, Paris Août 2005.

- **M. Jamei**, K. Sebri, A. Saada, H. Guiras, (**2005**) «Solving Diffusion equation for a swelling clay using the finite volume method», Milieux poreux et transferts hydriques, Bulletin du groupe francophone d'Humidimetrie et des transferts en milieu poreux, Novembre 2005, N° 51, pp. 44-49. ISSN : 0245-9493
- J.P. Gourc , O. Plé, P. Villard, S. Camp et P. Pierson**, M. Jamei** (**2004**) «Etude du comportement des barrières sommitales des centres de stockage des déchets», *Journées Nationales de Géotechnique et de Géologie*, Lille, juin 2004.
- J.P. Gourc , O. Plé, P. Villard**, M. Jamei,** (**2003**), « comportement des systèmes sols/géosynthétiques en couverture de centres de stockage de déchets », 13 ème Congrès Régional d'Afrique, décembre 2003.
- **M. Jamei,** H. Guiras, M. Boughanmi, P. Villard (**2002**) «Experimental and numerical study of reinforced clay behavior by short vegetal fibers: Application for the calculation of the solid waste landfill», *Seven International Conference on Geosynthetics*, September 22-27. pp. 1249-1252. Nice, France, 2002.
- **M. Jamei,** H. Guiras-Skandaji, (**2001**), « An approach to modelling the stability reinforced slopes by Geotextile », XVth International Conference on soil Mechanics and Geotechnical Engineering, *Istanbul*, 27-31 Août 2001.
- H. Skandaji, F. Masrouri, **M. Jamei,** O. Touil, (**2000**) «A new model to predict the swelling parameters on deformable unsaturated soil under controlled suction», *GeoEng 2000, An International Conference on Geotechnical and Geological Engineering*, 19-24 November 2000, Melbourne, Australia.
- **M. Jamei** (**1998**), « Stability Analysis of Foundations subjected to Earthquake Excitation: Limit Analysis Theory Application », First International Conference on Civil Engineering, 24-26 Mars 1998, Cairo, Egypt.
- J. Marzouki, **M. Jamei**, M. Bouassida (**1997**), « Etude expérimentale du comportement d'une argile gonflante de Gafsa », *Atelier : Les argiles Tunisiennes et leurs applications*, INRST, 2-3 Octobre 1997.
- **M. Jamei**, H. Smaoui, F. Kanoun et S. Boussetta, (**1997**) « Prise en compte du gonflement des sols dans l'étude de stabilité des ouvrages de Génie Civil », *Atelier : Les argiles Tunisiennes et leurs applications*, INRST, 2-3 Octobre 1997.

With Reviewers committee

- I. Hamrouni, S. Taibi, **M. Jamei**, **(2023)**, Hydro-mechanical behavior of raw earth treated with bio sourced binders; Euromagh, Marrakech (Morocco), 26-27 April, 2023.
- R. Jemli, S. Taibi, **M. Jamei**, (**2023)**, Water vapor permeability of biocomposite materials; Euromagh, Marrakech (Morocco), 26-27 April, 2023.
- I. Hamrouni, S. Taibi, **M. Jamei**, **(2023)**, Hydro-mechanical behavior of raw earth treated with bio sourced binders; Euromagh, Marrakech (Morocco), 26-27 April, 2023.

- F. HAMROUNI, Y. ALASSAF, H. TRABELSI, M. JAMEI **(2023*)*,** Numerical analysis of rainfall-induced slope instability in reduced scale model, Hammamet (Tunisia), 5-7 October, 2023
- F. HAMROUNI, Y. ALASSAF, H. TRABELSI, M. JAMEI **(2023)**, Numerical analysis of the drilled horizontal drains efficiency in physical slope model, Hammamet (Tunisia), 5-7 October, 2023
- F. Loauti; H. Trabelsi; A. Mabrouk, **M. Jamei (2018)** "Determination of the unsaturated permeability using the PPM method", International Conference on Unsaturated Soils. 5-8 August 2018, Hong-Gong, China.
- F. Hamrouni; **M. Jamei**, H. Trabelsi; L. Elghezal **(2016)** "Numerical back Analysis to optimize the laboratory scale model", Landslides and Engineered Slopes, Experience, Theory and Practice, Naples (Italie), 2016, ISBN 978-1-138-02988-0.
- F. Hamrouni; H. Trabelsi; **M. Jamei (2016)** "Numerical Simulation of Rainfall tests on Small Scale Mode", E. UNSAT 2016, 3rd European Conference on Unsaturated Soils. Frontiers in Unsaturated Soils, 12-14 September 2016, Ecole des Ponts ParisTech, Paris.
- H. Ben Jemaa, A. Kemama, L. Elghezal, H. Guiras, **M. Jamei (2015)** «Experimental Study of Crushable Expanded Clay», 3ème Colloque International UNSAT, du Grain à l'Ouvrage, 16 et 17 Novembre, Batna, Algérie.
- L. Elghezal, R. Fathalli, **M. Jamei**, H. Zenzri **(2015)** «Experimental Study of Dessiccation on Compacted Clay Soils», 3ème Colloque International UNSAT, du Grain à l'Ouvrage, 16 et 17 Novembre, Batna, Algérie
- F. Hamrouni, H. Trabelsii, L. Elghezal, **M. Jamei (2015)** «Numerical Simulation of Rainfall test on Small-Scale Model», 3ème Colloque International UNSAT, du Grain à l'Ouvrage, 16 et 17 Novembre, Batna, Algérie
- F. Louati, H. Trabelsi, **M. Jamei (2015)** «Experimental and Numerical Investgation about Permeability of Fissured Clay of Dessiccation on Compacted Clay Soils», 3ème Colloque International UNSAT, du Grain à l'Ouvrage, 16 et 17 Novembre, Batna, Algérie
- H. Trabelsi, **M. Jamei (2015)** «3D Dessiccation Crack Pattern Effects on Unconfined Compressive Strength of Clay», 3ème Colloque International UNSAT, du Grain à l'Ouvrage, 16 et 17 Novembre, Batna, Algérie

4. MEMBERSHIP in RESEARCH INSTITUTS

- 1998-2004: Membership and responsible of Geotechnical team in laboratory «Modeling and Structure Analysis», ENIT.
- 2004-2021 Membership and responsible of Geotechnical team in laboratory Civil Engineering», ENIT.

5. MEMBERSHIP in SCIENTIFIC COMMITTEES

INTERNATIONAL COMMITTEES

- November 2016-2021 Secretary of International JTC-1 committee (International technical committee for landslides) and member of International Society for soil Mechanics and Geotechnical Engineering.
- Since January 2022 Membership of International JTC-1 committee.
- Since February 2015 as Member of International JTC-1 committee (International technical committee, for landslides) and member of International Society for soil Mechanics and Geotechnical Engineering.
- Since 2000, Membership of the International Society for Soil Mechanics and Geotechnical Engineering (SIMSG/ISSMGE).

NATIONAL COMMITTEES

- Chairman of Tunisian geosynthetics chapter (chapter of international geosynthetics society: IGS) and member of International Geosynthetics Society (2009-2017).
- Membership of Tunisian Committee of soil Mechanics (Association Tunisienne de Mécanique des Sols: l'ATMS).

6. REVIEWER WORK in REFEREED JOURNALS

* Reviewer in "International Journal of Geotechnical Engineering" (Taylor ℘ Francis Editor)

* Reviewer in "Bulletin of the Engineering Geology and the Environment " (Taylor ℘ Francis Editor)

* Reviewer in "International Journal of Civil Engineering" (Springer Editor)

* Reviewer in "Journal of Testing and Evaluation" (ASTM International, Editor)

* Reviewer in "International Journal of Geomechanics" (ASCE Editor)

* Reviewer in "International Geosynthetics" (ELSEIVER Editor)

* Reviewer in "Arabian journal for science and engineering" (Springer Editor)

* Editor in Chief of a Book (2013): "Landslides: From the theory to the practical cases"

7. MEMBERSHIP in SCIENTIFIC COMMITTEES OF CONGRESS

- Membership of Scientific Committee of the International Congress on Landslides»: June 2024, Chambery, France.
- Chairman of the Scientific Committee of the «2nd International Symposium on Landslides (ISL2023): Slope Stability Problems in Stiff Clay and soft rocks»: October 2023, Tunis.

- Membership of Scientific Committee of the International Collogue on Unsaturated soils»: 15-16 March, 2024, Chlef, Algeria.
- Membership of Scientific Committee of the International Collogue on Unsaturated soils»: 15-16 March, 2022, Ouargla, Algeria.
- Membership of Scientific Committee of the «1th International Symposium on Landslides (ISL2021): Slope Stability Problems in Stiff Clay and Flysch Formations»: June 2021, Napoli, Italy.
- Membership of Scientific Committee of the «13th International Symposium on Landslides, June 2020 (ISL2020):
- Membership of Scientific Committee of the «12th International Symposium on Landslides (ISL2016) »: June 2016, Napoli, Italy.
- Membership of Scientific Committee of the International Symposium on Landslides»: 17-18 Februry, 2015, Batna, Algeria.
- Membership of Scientific Committee of the «Colloque International UNSAT BATNA 2015»: 17-18 Februry, Batna, Algeria.
- Chairman of the Advisory Committee of the «First International Conference on Landslides»: 14-16 Mars 2013, Tabarka, Tunisia.
- Membership of Scientific Committee of the «First International Conference on Landslides»: 14-16 Mars 2013, Tabarka, Tunisia.
- Membership of Scientific Committee of the «Third International Conference on Geotechnical Engineering»: 20-22 Novembre 2013, Hammamet, Tunisie.
- Membership of Scientific Committee of the «Second International Conference on Geotechnical Engineering»: 25-27 Octobre 2010, Hammamet, Tunisie.
- Membership of Scientific Committee of the « 7ème Colloque Francophone des Géosynthétiques »: 1-3 Avril 2009, Nantes, France.
- Membership of Scientific Committee of the «XIV Colloque Franco-Polonais (Congrès Français de Mécanique) »: 29-31 Août 2007, Grenoble, France.
- Membership of Scientific Committee of the «6ème Colloque Francophone des Géosynthétiques »: 12-14 Juin 2006, Montpellier, France.
- Membership of Scientific Committee of the «Eighth International Conference on Geosynthetics»: September 18-22, 2006, Yokahama, Japan.

8. SUPERVISOR of MASTERS DEGREE AND PHD THESIS

Supervisor of defended P.H.D. Thesis

- **Topic**: «Experimental and modeling of the eco-construction: the energy aspect optimization», scheduled for 16 February, 2023.
- **Topic**: «Fragmentation study of the expanded clay and its effects on the macroscopic behavior », defended in July, 2020.

- **Topic**: «Experimental and modeling study of the soil treated by the foam agent », defended in July, 2020.
- **Topic**: «Unsaturated rock behavior, Application to an historical monument », defended in July, 2020.
- **Topic**: «Contribution to the modeling of the hydraulic properties of the fissured fine soils by desiccation», defended in July, 2020.
- **Topic**: «Experimental study of the unsaturated hydraulic properties under hydraulic cycles of the fissured clay», defended in July, 2019.
- **Topic**: «Numerical modeling of the Physical Modeling of the », defended in July, 2019.
- **Topic**: «Experimental and Numerical study of the role of the natural and synthetic fibers on the desiccation of clay », defended in January, 2018.
- **Topic**: «Desiccation effects on the hydro-mechanical properties of clayey soil», defended in July 2016.
- ***Topic***: «Experimental and Numerical study of the desiccation clay», defended in March 25, 2014.
- **Topic**: «Experimental and Numerical study of the silt behavior under tensile stresses*: Discrete Elements Approach*», defended in May 18, 2009.

Supervisor of PHD Thesis in progress*:*

- **Topic**: «Experimental study of the earth blocs using the organic binder to substitute the mineral binders», scheduled for defense in December 2024.

Supervisor of Master's Degree:

- **Master Degree** *«The landslide modelling in unsaturated clayey soils* », June 2011.
- **Master Degree** *«The Reinforcement soil using short fibers: Investigation de Interface soil-fiber investigation*», 24-06-2010.
- **Master Degree** *«The numerical study of the expanded perlite behavior as a soft grain material using DEM (Discrete Element Method)* », 07-2008.
- **Master Degree** *«The water retention properties of the expanded perlite behavior* », 21-10-2008.
- **Master Degree** *«the effective properties of a porous media determination: Homogenization method approach*», 07-2006.
- **Master Degree** *«Identification of the water retention curve and study of the shear behavior of unsaturated soils»*, 5-07-2006.
- **Master Degree** «Numerical and experimental study of the clay behavior under tensile stresses», 5-07-2006.
- **Master Degree** *«The laboratory study of the relation between the water retention properties and the swelling parameters of fine soils*», 5-07-2006.
- **Master Degree** «Finite Volume approach applied to the resolution of the non-linear Diffusion Equation: Application the swelling unsaturated clay*»,* 13-09-2004.
- ***Master Degree*** «Experimental *Validation to characterize the water retention curve of the unsaturated soils*», 3-09-2004.

- ***Master Degree*** *«Shallow foundations stability under earthquake: A quasi-static approach*», 24-06-2004.
- **Master Degree** «Using of the geodrains to accelerate the consolidation*: Application for Pont Radès-La Goulette*», 13-09-2004.
- **Master Degree (DEA)** «Numerical method to apply the static method of the Yield Design Theory: An external approach» 28-10-2002.
- **Master Degree (DEA)** «Numerical resolution of the non-linear Diffusion Equation: Application the swelling clay phenomenoun»12-11-2002.
- ***Master Degree (*DEA)** «Numerical and experimental study of the clay behavior, under tensile stresses: Application on the Landfill cover liner»,15-11, 2002.

9. INTERNATIONAL COOPERATION PROJECTS

- Chairman of Cooperation Project between ***National Engineering School of Saint-Etienne (France)*** and **ENIT Tunis,** (2015-2018) (Ref.: **15G1116**).

  Topic: Treatment of the soil and Hydro-mechanical properties of the polluted soil

- Chairman of Cooperation Project between ***National Engineering School of Saint-Etienne (France)*** and **ENIT Tunis,** (2012-2016) Financial by **Rhone Alpes Region.**

- Chairman of Cooperation Project between ***Polytechnic University of Catalonia*** (**UPC University, Barcelona, Spain**) and **ENIT Tunis** 2005-2012 **(**Ref.: **A / 3941/05, A/6451/06, C/012488/07)**.

  Topic: Unsaturated Geomaterials (concrete-soil) Behavior: Experimental and modeling

- Chairman of Cooperation Project between ***Polytechnic University of Athens*** (Greece), and **ENIT Tunis**, 2005-2007, Ref.: **62/TG/05**

  Topic: Experimental and Numerical study of the localization in Geomechanics: Failure and Bifurcation».

- Supervisor of « Project CMCU intégré (*) 2001-2004: The reinforcement of the soils using the geosynthetiques»:

  Partners: « ***ENIT Tunis/Ecole des Ponts et Chaussées de Paris/Université Joseph Fourier de Grenoble.***

  Topic: Columns and Geotextile design for soil reinforcement. **CMCU-99/F1199** = Research Project between France and Tunisia

COMMUNITY SERVICES

CONSULTING

- 2010-2017: Consultant in Geotechnical Engineering, Foundations Design and field and laboratory Geotechnical tests for the company SIGMASOL (Tunisian Company).

- 1997-2015 Consultant in field and lab Geotechnical tests and the Dams design and stability for the company SERAH (Consulting Tunisian Company).
- 1997-2011 Consultant in seismic activities, soil dynamics and stability of structures under earthquake; offshore structures for the STUDI (Consulting Tunisian Company)
- 2008-2011: Consultant in Geosynthetics Design for Colbond Company (French and Germany Companies).
- 2006-2011: Consultant in Geosynthetics Design for HEUSKER Company (French and Germany Companies).
- 2006-2011: Consultant in Geosynthetics Design for SERET Company (Tunisian Company).
- 2008-2010: Consultant in the project of the shale gaz production by the hydraulic fracture technique; Schlumberger Company (Tunisian branch Company).
- 2002-2009: Consultant in Geosynthetics Design for Landolt Company (French and Swiss Company).

Various Community Activities

- January 2023: Field visits and exchanges with the Ministry of Environment in Arar, about the solid waste management. Topic: Establishment of cooperation protocol concerning the graduate research projects on the management of solid wastes in Northern Border region.
- March 2022: Field visit organized with the Engineer of the company working on construction on pre-stressed Bridge elements in Arar.
- February 2022: Exchanges and visits for the company 'SAFCO' in Arar, which is working on drilling and laboratory analysis of soils and rocks.
- February 2022: Field visits and exchanges with the companies working on the construction of the buildings in the new NBU field, about the risk hazard of the limestone and gypsum cavities
- April 2021: Flood awareness, Meetings and Field visits with the Majoul Company (in Arar)
- March 2017: Workshop organized in the Engineering College, Northern Border University; The consequences of karstic cavities on the design foundations and the progress of the works: Impact socio-Economic

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Scientific and commercial Software used:

SLOPE/W, TALREN, PLAXIS/ COMSOL/ ABAQUS/ CODE-BRIGHT/PFC2D and 3D