Name: Salah KHALFALLAH

Rank: Professor

Department: Mechanical Engineering

Email Address: <u>saleh.khalfallah@enp-constantine.dz</u>,khalfallah\_s25@yahoo.com

# **Educational Profile:**

- > Doctorat State (2003) in Structural Mechanics, University Constantine 1, Algeria
- Magister (1991), in Structural Mechanics , University of Annaba, Algeria
- Engineer (1988), University of Constantine 1, Algeria

# **Honors and Distinctions**

# Scientific Activities & Membership of Scientific Societies

**Director** of the Laboratory of Mechanic and advanced Materials, Polytechnic Natioal School of Constantine, Algeria.

Director of the Civil Engineering Laboratory (LGCE), University of Jijel, Algeria

**Responsible** of the Doctorate formation, Civil Engineering Department, University of Jijel.

Responsible of the Civil Engineering option, University of Jijel.

- **Member** of the preparation and correction of the entrance examination for the first year of the Doctoral school, University of Skikda (October 2008).
- **Expert** for the empowerment of graduate level courses and options and Doctoral schools

for the academic year 2008-2009.

- **Member** of preparation and correction of the entrance examination to the first year of the Doctoral school, University of Skikda (October 2007).
- **Member** of the pedagogical committee of the Doctoral school, option: Geotechnics organized by the University of Skikda for the academic year 2007-2008.
- **Member** of the organizing committee of scientific days of civil engineering, 16-17 April 2006, University of Jijel.
- President of the Magister Pedagogical Committee, Academic Year 2004.

Expert for the enabling of courses and graduate degree, options in civil engineering.

Academic Year 2004-2005.

Member of the Scientific Council of the Faculty of Science and Technology.

Since 1997- 2013.

- **President** of the scientific committee of the department: Mandate of the 2007-2009. Terms for 2003-2006.
- **Member** of the commission for the preparation of the subjects of the regional competition for training abroad: Year 2005-2006.

# **List of Current Research Projects**

# **Directed PROJETS of RESEARCH**

1. <u>Numerical and kinematic modeling of biological organs</u> PRFU Project N° (submitted)

Quality : Project manager

Period : 1/1/2020 to 31/12/2024.

2. <u>Influence of the soil properties on the seismic response of structures (in French)</u> CNERPU Project N° J0401720140060

Quality : Project manager

Period : 1/1/2015 to 31/12/2018.

3. <u>Influence of superior modes of vibration on the dynamic response structures.</u> CNERPU Project N° J0401720110010

Quality : Project manager

Period : 1/1/2012 to 31/12/2015.

4. <u>3D-dimensional simulation of nonlinear behavior of RC structures</u>. CNERPU Project N° J0401720070005

Quality : Project manager

Period : 1/1/2008 to 31/12/2011.

5. Nonlinear behavior of RC structure: bidimensionnal modeling. CNERPU Project N° J1801/04/01/2005

Quality : Project manager

Period : 1/1/2005 to 31/12/2007

6. Optimization of local material in B.T.P projects. CNERPU Project N° J1801/04/01/1997

Quality : Project member

Period : 1/1/1997 to 31/12/1999.

Publications in International Journals

#### 1. ABID CHAREF O., KHALFALLAH S. (2022)

A variant design of Tuned Mass Damper with negative stiffness for vibration control of a damped primary system. Structural Control and Health Monitoring Journal, Wiley, Vol. 29(11), August, 4, 2022.

https://onlinelibrary.wiley.com/doi/abs/10.1002/stc.3068

2. HAMIOUD S., KHALFALLAH S., BILOTTA E. (?) Vibration of beams on variable Winkler elastic foundation by using the spectral element method.

#### **Under review**

3. GUERDOUH D., KHALFALLAH S. (2022)

Effects and behavior of soil-framed structure interaction under dynamic loading.

Gradevinar Journal, Vol. 74(1): 9-20.

http://casopis-gradjevinar.hr/archive/article/2301

## 4. ABID CHAREF O., KHALFALLAH S. (2021)

Analytical and numerical-graphical optimization of dynamic vibration absorber based on

two-fixed point theory.

International Journal of Mechanics and Control, Vol. 22(2): 107-115.

http://www.jomac.it/index.php?id=2021-december-vol-22-no-2

## 5. ABID CHAREF O., KHALFALLAH S. (2021)

H-infinity optimization of dynamic vibration absorber with negative stiffness. Applied Mathematics, Mechanics, and Engineering, Vol. 64(2): 461-468.

https://atna-mam.utcluj.ro/index.php/Acta/article/view/1652

## 6. ABID CHAREF O., KHALFALLAH S. (2021)

Closed-form solution to H-infinity optimization of pre-tensioned tuned mass damper. International Review of Mechanical Engineering. Vol. 15(3): 157-164. <u>https://www.praiseworthyprize.org/jsm/index.php?journal=ireme&page=article&op=view&path%5B%5D=25664</u>

BOUDAA S., KHALFALLAH S., BILOTTA E. (2021)Modal analysis of beam on elastic foundation by the spectral element method.

Mathematical Modeling in Civil Engineering, Vol. 16:1-11.

https://mcee.utcb.ro/images/doc/2021/mmce-2021-0005.pdf

8. HAMIOUD S., KHALFALLAH S., BOUDAA S. (2020)
 Vibration of Timoshenko beam-soil foundation interaction by using the spectral element method.

Journal of Solid Mechanics, Vol. 12(3): 607-619.

http://jsm.iau-arak.ac.ir/article\_677316.html

#### 9. GUERDOUH D., KHALFALLAH S. (2019)

Soil-Structure interaction Effects on the Seismic Performance of Frame Structures.

Revista de la Construccion, Journal of Construction, Vol. 19(2): 349-363.

http://revistadelaconstruccion.uc.cl/index.php/rdlc/article/view/1607

**10.** BOUDAA S., **KHALFALLAH S.**, HAMIOUD S. (**2019**) Dynamic analysis of soil structure interaction by spectral element method. Innovative Infrastructure Solutions, 4:40.

https://link.springer.com/article/10.1007/s41062-019-0227-y

**11.** BOUROUAIAH W., **KHALFALLAH S.**, BOUDAA S. **(2019)** Influence of soil properties on the dynamic response of structures.

International Journal of Advanced Structural Engineering, Vol. 11(3): 309-319.

https://link.springer.com/article/10.1007/s40091-019-0232-6

**12.** BOUROUAIAH W., **KHALFALLAH S.**, BOUDAA S. **(2019)** Soil non homogeneity and soil structure interaction effects on Euler-Bernoulli Beam vibration

Structure and Building Journal, Vol. 174(3): 202-214.

https://www.icevirtuallibrary.com/doi/abs/10.1680/jstbu.18.00091

#### 13. HAMIOUD S., KHALFALLAH S. (2019)

Vibration Analysis of a Beam on Elastic Foundation with Elastically Restrained Ends Using Spectral Element Method.

World Academy of Science, Engineering and Technology International Journal of Civil and Environmental Engineering Vol. 13(9): 600-604.

https://publications.waset.org/10010766/c-vibration-analysis-of-a-beam-on-elastic-foundationwith-elastically-restrained-ends-using-spectral-element-method

#### 14. BOUDAA S., KHALFALLAH S., Bilotta E. (2019)

Static interaction analysis between beam and layered soil using a two-parameter elastic foundation

International Journal of Advanced Structural Engineering, Vol. 11(1): 21-30.

https://link.springer.com/article/10.1007/s40091-019-0213-9

#### 15. HAMIOUD S., KHALFALLAH S. (2018)

Free-vibration of Timoshenko Beam using the spectral element method.

International Journal for Engineering Modelling, Vol. 31(1-2), 2018, pp. 61-76.

http://gradst.unist.hr/Portals/9/docs/EM/EM-2018-NO\_1-2/355.pdf

**16.** BOUROUAIAH W., **KHALFALLAH S.**, GUERDOUH D. **(2017)** Effect of soil mechanical properties on RC wall system responses.

Tecknicki Glasnik Journal, Vol. 11(1-2), 2017, pp. 1-6.

http://hrcak.srce.hr/index.php?show=clanak&id\_clanak\_jezik=270882

17. HAMIOUD S., KHALFALLAH S. (2016)

Free-vibration of Bernoulli-Euler Beam by the spectral element method.

*Technical Journal*, Vol. 10 (3-4), 2016, pp. 106-112.

http://hrcak.srce.hr/index.php?show=clanak&id\_clanak\_jezik=253508

#### 18. KHALFALLAH S. (2015)

Analytical approach of tension stiffening contribution of GFRP-members.

Journal of Applied Science and Engineering, Vol. 18(1), 2015, pp. 1-8.

www2.tku.edu.tw/~tkjse/18-1/01-CE10201\_907.pdf

# 19. KHALFALLAH S., GUERDOUH D. (2014)

Tension stiffening approach in concrete of tensioned members.

International Journal of advanced Structural Engineering, Vol. 6:51, 2014.

http://link.springer.com/article/10.1007/s40091-014-0051-8

## 20. KALFALLAH S. (2013)

Tension stiffening model for nonlinear analysis of GFRP-RC members

IES Journal Part A: Civil & Structural Engineering, Vol. 6 (3), 2013, pp. 269-277

http://www.tandfonline.com/doi/pdf/10.1080/19373260.2013.801329

## 21. KHALFALLAH S. (2011)

Explaining the Riddle of Effective Moment of Inertia Models for FRP Concrete Beams. *International Journal of Structural Engineering*, Vol. 2(1), 2011, pp. 23-34.

http://www.inderscienceonline.com/doi/abs/10.1504/IJSTRUCTE.2011.038067

## 22. KHALFALLAH S. (2009)

Tension stiffening model of RC beams based on fracture energy concept. *International Review of Mechanical Engineering*, 2009, vol. 3(5), 573-578. <u>http://www.praiseworthyprize.com/IREME-latest/IREME\_vol\_3\_n\_5.html</u>

## 23. KHALFALLAH S. (2009)

Modeling of bond in reinforced concrete structures.

Building research journal, 2009, Vol. 57(1), pp. 45-54.

http://www.ustarch.sav.sk/ustarch/index.php?option=com\_content&task=vi

ew&id=378&Itemid=32

#### 24. KHALFALLAH S. (2008)

Tension stiffening bond Modeling of Cracked Flexural Reinforced Concrete Beams.

*Journal of Civil Engineering and Management*, 2008, Vol. 14(2). p. 131-137.

http://www.tandfonline.com/doi/abs/10.3846/1392-3730.2008.14.8

#### **25.** KHALFALLAH S. (2008)

Modeling of bond for pull-out tests.

Building research journal, 2008, Vol. 56(1), pp. 37-48.

http://www.ustarch.sav.sk/ustarch/index.php?option=com\_content&task=view&id=378&

Itemid=32

#### 26. KHALFALLAH S., OUCHENANE M. (2008)

Prediction of bond between steel and concrete by numerical analysis. *Open Civil Engineering Journal*, 2008, Vol. 2, pp. 1-8.

https://benthamopen.com/contents/pdf/TOCIEJ/TOCIEJ-2-1.pdf

#### 27. KHALFALLAH S., OUCHENANE M. (2007)

A numerical simulation of bond for pull-out tests- the direct problem.

Asian Journal of Civil Engineering, 2007, Vol. 8(5), pp. 481-505.

http://ajce.bhrc.ac.ir/tabid/1529/agentType/View/PropertyID/6221/Default.aspx

**28.** KHALFALLAH S., BECHKET A. (2007) FE Simulation of Shear Reinforced Concrete Beams.

Building Research Journal, 2007, vol.57(3), pp. 133-147.

http://www.ustarch.sav.sk/ustarch/index.php?option=com\_content&task=view&id=378&Itemid =32

#### **29.** KHALFALLAH S. (2006)

Cracking analysis of RC tensioned members.

Structural Concrete, Official Journal of the **FIB**, 2006, vol. 7(3), p. 111-115.

http://www.fib-international.org/structural-concrete-contents-for-volume-7-2006

#### 30. KHALFALLAH S., HAMIMED S. (2005)

Bond-slip analysis of reinforced concrete members.

European Review of Civil Engineering, 2005, Vol. 9(4), pp. 509-521.

http://www.tandfonline.com/doi/abs/10.1080/17747120.2005.9692767

**31.** KHALFALLAH S., CHARIF A., NAIMI M. (2004) Nonlinear analysis of reinforced concrete structures using a new constitutive model.

European Review of Numerical Mechanics, 2004, Vol. 13 N° 8, pp. 841-856.

http://www.tandfonline.com/doi/abs/10.3166/reef.13.841-856

# **32.** KHALFALLAH S., CHARIF A., GUENFOUD M. (2002) Nonlinear modeling of RC structure behavior.

European Review of Civil Engineering, 2002, Vol.6, N° 7-8, pp. 1397-1414.

http://www.tandfonline.com/doi/abs/10.1080/12795119.2002.9692415

# Publications in International Conferences and Proceedings

- Abid Charef O., KHALFALLAH S. (2022) Modeling, Optimization, and Control of Dynamical Systems with Negative Stiffness using Fixed Points theory. 1<sup>st</sup> International Workshop on Applied Mathematics 1<sup>st</sup>-IWAM'2022, University of Constantine, 6-8 December 2022.
- 34. Hamioud S., KHALFALLAH S. (2020)

Vibration Analysis of a Beam on Elastic Foundation with Elastically Restrained Ends Using Spectral Element Method. International conference in Canada

**35.** Boudaa S., **KHALFALLAH S.** (2019)

Influence of soil-structure interaction on the behavior response of beam by the spectral element method, Structural Engineering and Concrete Technology, 19-21 April 2020, Lisbone, Portugal.

#### 36. Hamioud S., KHALFALLAH S. (2019)

Dynamics of beam-soil interaction by the spectral element method.

International Conference on Structural and Civil Engineering, June, 6-7, 2019, Paris,

France.

#### 37. KHALFALLAH S. (2015)

Effect of soil mechanical properties on RC wall system responses.

5<sup>Th</sup> Annual International Conference on Civil Engineering, Structural Engineering and Mechanics, 25-28 may 2015, Athens, Greece.

https://www.atiner.gr/2015/2015PRO-CIV.pdf

#### **38.** KHALFALLAH S. (2014)

Tension stiffening approach in concrete of tensioned members.

4<sup>th</sup> Annual International Conference on Civil Engineering, Structural Engineering and Mechanics, 26-29 may 2014, Athens, Greece.

https://www.atiner.gr/abstracts/2014ABST-CIV.pdf

#### **39.** KHALFALLAH S. (2012)

Effective stiffness approach of FRP reinforced concrete beam. 15<sup>th</sup> European Conferenc**e** on Composite materials, Italy, 24-28 June 2012.

http://www.escm.eu.org/eccm15/data/assets/1249.pdf

#### **40. KHALFALLAH S.** (2012)

Tension stiffening model for nonlinear analysis of reinforced concrete members.

International Symposium on Composites and Aircraft Materials, 9-12 mai 2012, Fès, Maroc.

http://acma2012.esta.ac.ma/

#### **41. KHALFALLAH S.** (2010)

Effective moment of inertia problem of FRP- concrete Beams (in French).

University meeting of Civil Engineering, France, pp. 1378-1387.

www.augc.asso.fr/

#### **42.** KHALFALLAH S. (2010)

Deflection Calculation based on modification of Gao equation of FRP reinforced concrete beams. International Symposium on Composites and Aircraft Materials, 12-14 mai 2010, Marrakech, Maroc <u>HTTP://WWW.ENIT.FR/ACMA2010/INSTRUCTIONS-FR.HTML</u>

#### **43.** KHALFALLAH S. (2009)

Explaining the Riddle of effective moment of inertia models for FRP concrete beams.

The first International Conference on Sustainable Built Environment Infrastructures in Developing Country, ENSET Oran, 12-14 October 2009, pp. 57-64.

http://www.enset-oran.dz/spip.php?page=album&id\_article=202

#### 44. MERABET W., KHALFALLAH S. (2009)

Beam modeling after cracking (in French).

The first International Conference on Sustainable Built Environment Infrastructures in Developing Country, ENSET Oran, 12-14 October 2009, pp. 111-118.

http://www.enset-oran.dz/spip.php?page=album&id\_article=202

#### 45. KHALFALLAH S. (2009)

Tension stiffening model of RC beams based on the fracture energy concept.

The international Conference of Structural Analysis of Advanced Materials, september 7-10, 2009, Tarbes, France.

http://www.enit.fr/ICSAAM2009/ICSAAM-PROGRAM.pdf

#### 46. MERABET W., KHALFALLAH S. (2008)

Cracking behavior of reinforced concrete beams using finite element method. European Conference FEMS, 14-18 July 2008, Lausanne, Switzerland, pp. 175-184. www.dgm.de/past/2008/junior-euromat/images/JE Programm 2008.pdf

#### 47. OUCHENANE M., KHALFALLAH S. (2008)

Steel-concrete interaction simulation: Anchorage length effect, bar diameter, and tensile of concrete. 6<sup>th</sup> International Conference of Material Sciences (ICMC\_6), 15-18 Jully 2008, Liban.

www.ul.edu.lb/csm/files/3.pdf

#### 48. KHALFALLAH S., MERABET W. (2008)

Tension Stiffening Model of RC beams based on fracture energy concept. 6<sup>th</sup> International Conference of Material Sciences (ICMC\_6), 15-18 JULY, 2008, LIBAN.

www.ul.edu.lb/csm/files/3.pdf

#### **49.** OUCHENANE M., KHALFALLAH S. (2007)

Numerical simulation of bond, steel-concrete, Application: Pull-out tests.

International Conference on metallurgy and Environment, CIME\_07, 23-25 april 2007, University of Annaba, Algeria.

http://www.andru.gov.dz/conf-inter.htm

#### 50. KHALFALLAH S., OUCHENANE M. (2007)

A numerical simulation of bond for pull-out tests – The direct problem.

2<sup>nd</sup> Symposium on Connections between steel and concrete, Stuttgart, Germany, September 4<sup>th</sup>-7<sup>th</sup>, 2007, pp.849-858, **ISBN**: 978-3-89821-8.

www.iwb.uni-stuttgart.de/Symposium/download/Invitation\_Program.pdf

#### **51. KHALFALLAH S.,** ZENNIR A. (2005)

Cracking analysis of reinforced concrete members. 33 Congrès International de génie civil, 4-5 Juin 2005, Toronto, Canada, pp. GC-281-1 -GC-281-11.

#### http://www.CSCE2005.ca

**52.** KHALFALLAH S., CHARIF A. (2005)

Contribution to the nonlinear analysis of RC structures.

International Symposium International of Construction, 22-24 November 2005, University of Chlef, Algeria.

**53. KHALFALLAH S.,** CHARIF A., NAIMI M. (2003)

Local and global behavior of reinforced concrete structures.

First International Conference of Civil Engineering Science (ICCES1), 7-8

October 2003, Assiut, Egypt, pp. 592-603, ISSN 1687-1790.

http://www.aun.edu.eg/conferences/confeng/icces1.htm

54. KHALFALLAH S., CHARIF A., NAIMI M. (2003)

Global Behavior of Reinforced Concrete Beams. Fourth International Conference on earthquake Resistant Engineering Structures ERES 2003. 22-24 September 2003, Ancona, Italy, pp. 322-332.

ISBN: 1-85312-984-4

http://www.witpress.com/acatalog/9844.html

# 55. KHALFALLAH S., CHARIF A. (2001)

2D modeling of elastoplastic of RC structures using finite element method (in French). International seminary on Numerical modeling of structures and geomaterials, 2001, University of Batna, Algeria, pp.124-133.

# Publications in National Journals

**56.** GUERDOUH D., **KHALFALLAH S.**, BOUROUAIAIH W. **(2018)** Influence des propriétés du sol sur la réponse dynamique des portiques

Algerian & Equipment Journal, Vol. 58, 2018, pp. 66-77.

http://www.entp.edu.dz/index.php/revue-algerie-equipement/le-nouveau-numero-de-la-revue

#### **57.** HAMIOUD S., **KHALFALLAH S. (2017)** Dynamic analysis of rods using the spectral element method.

Algerian & Equipment Journal, Vol. 57, 2017, pp. 49-55.

http://www.entp.edu.dz/index.php/revue-algerie-equipement/le-nouveau-numero-de-la-revue

# **58.** KHALFALLAH S. (2010)

Caliber of the bond in RC structures (in French).

Campus Journal, Mouloud Mamaari University, Tizi Ouzou, Algerie, 2008, Vol. (10) . pp. 3-20

http://www.ummto.dz/spip.php?rubrique966

**59. KHALFALLAH S.** (2010)

Bond modeling in structures at service state (in French).

Communication Science & Technology Journal, Vol. 8, pp. 41-50.

http://www.enset-oran.dz/IMG/file/communication\_6.pdf

#### 60. KHALFALLAH S. (2010)

Prediction of the inelastic response of RC walls (in French).

Communication Science & Technology Journal, vol. 8, pp. 33-40.

http://www.enset-oran.dz/IMG/file/communication\_5.pdf

**61. KHALFALLAH S.,** BENOUATA S. (2009) Elastoplastic approach of annular structure behavior (in French).

Algeria &t Equipements Journal, N° 45(2), pp. 31-35.

http://www.entp.edu.dz/index.php/revue-algerie-equipement/collections-des-anciensnumeros/89-revue-45

**62.** KHALFALLAH S., CHARIF A. (2004) Modeling of the nonlinear behavior of RC structures.

Sciences & Technology Journal, University of Constantine, N° 21, 2004, pp. 29-35.

http://revue.umc.edu.dz/index.php/b/issue/view/37/showToc

# 63. KHALFALLAH S., CHARIF A. (2004)

Bi-dimensional behavior of structures under monotonic loading.

Algeria &t Equipements Journal, Vol. 37, 2004, pp. 18-23.

http://www.entp.edu.dz/index.php/revue-algerie-equipement/collections-des-anciensnumeros/83-revue-37

## Publications in National Communications

64. Hamioud S., KHALFALLAH S., (2018)

Dynamic interaction between solid bodies,

Journées Scientifiques sur les Sciences et l'Engineering, JSSE'18, Ecole Nationale Polytechnique de Constantine, 9-10 décembre 2018, Constantine, Algérie.

**65. KHALFALLAH S. (2014)** Nonlinear modeling of RC structure behavior integrating sol structure interaction.

Scientific days, 13-14 may 2014, University of Jijel.

**66.** Guerdouh D., **KHALFALLAH S.** (2014) Dynamic behavior on nonlinear frames.

Scientific days, 13-14 may 2014, University of Jijel.

67. Bourouaiah W., KHALFALLAH S. (2014)

Interaction of soil-structure interaction on wall response: Linear and nonlinear analysis, Scientific days, 13-14 may 2014, University of Jijel.

**68. KHALFALLAH S.,** BOUZID M., REDJEL B. (2009) Prediction of the inelastic response of RC shear walls.

Structural Mechanic JMS09, Soil and Structure Mechanic Laboratory, University of Constantine, 28 January 2009.

- 69. KHALFALLAH S. (2008) Tension stiffening model of FRP reinforced concrete beams. National Seminary of Civil Engineering SNGC08, University of Chlef, December, 15-16, 2008.
- **70.** OUCHENANE M., **KHALFALLAH S.**, OUCHENANE K. (2008) Bond steel-concrete simulation and concrete behavior of pull out test.

National Collogue, Pathology of buildings, November 25-26, 2008, University of Constantine.

**71.** KHALFALLAH S. (2008)

Tension stiffening representation of FRP-reinforced concrete beams. Cientific days, Civil Engineering Laboratory, University of Constantine, 31/3/2008-1/4/2008.

**72.** KHALFALLAH S. (2007)

Coupled of cracking and the elastic linear and elastoplastic models. Comparative study.

National Seminary of Civil Engineering, University of Annaba, November 20-21, 2007.

#### 73. MERABET W., KHALFALLAH S. (2007)

Shear behavior of reinforced concrete beams using tension stiffening model of concrete.

National Seminary of Civil Engineering, University of Annaba, November 20-21, 2007.

**74.** OUCHENANE M., KHALFALLAH S. (2007) Effect of bond in pull out test.

National Seminary of Civil Engineering, University of Annaba, November 20-21, 2007.

**75. KHALFALLAH S.** (2006)

Bond behavior of flexural RC elements.

Scientific days on Civil engineering, University of Jijel, April, 16-17, 2006.

#### 76. KHALFALLAH S. (2003)

Technical resolution of nonlinear behavior of softened concrete.

National Seminary of Civil Engineering, University of Sidi Bel Abbes, April 15-16, 2003.

77. KHALFALLAH S., CHARIF A. (2002) Limit load analysis for RC beams.

Maghreb collogue of Civil Engineering, University of Biskra, pp. 59-68.

# List of Current Doctoral Research Students Supervision

<u>Directed Doctorate thesis</u>

- 1. **Miss. Benchikh elhocine Hala**, National Polytechnic School of Constantine.. Modeling of elastoplastic with damage behavior of bone structures : Application of femur necks.
- 2. **M. Abid Charef Okba**, National Polytechnic School of Constantine. Passive minimization of mechanical systems using nonlinear absorbers.
- 3. Mrs. BOUDAA Souad, University of Constantine, defense on January 20<sup>th</sup>, 2020. Soil-structure interaction analysis using spectral element method
- 4. Mrs. BOUROUAIAH Widad, University of Jijel, defense on December 4<sup>th</sup>, 2019. Influence of the soil nature on dynamic structure response
- 5. Mrs. GUERDOUH Dhahbia, University of Bejaia, defense on September 20<sup>th</sup>, 2022. Influence of frame-soil interaction on seismic behavior of buildings: Linear and non linear studies.
- 6. **Miss. HAMIOUD Saida**, University of Jijel. defense on January 27<sup>th</sup>, 2020 Dynamic analysis of soil-structure interaction using the spectral element method.

# **Directed Magister Thesis**

- M. BOURAOUI Ichème, University of Skikda , (Defense 19/ 1/ 2012). Modeling the stability of slope with piles
- 2- M. ZINE Adlène, University of Jijel (work not complete).Contribution to wall behavior under seismic loading.
- **3- Miss. BENOUATA Sihem,** Université de Jijel (Defense **23/ 6/ 2009).** Plastic behavior of annular structures.
- M. BELKHALFA Abdeljallil, University of Jijel, (Defense 7/7/2008).
  Analysis of limit load of elastic plates.
- 5- Miss MERABET Widad, University of Constantine, (Defense 11/02/2008).Modeling of the beam behavior after cracking "Tension stiffening effect".
- **6- M. BECHKET Adel,** University of Jijel, (Defense **15/11/2007).** Modeling of the longitudinally reinforced concrete shear beams.

# 7- Miss OUCHENANT Meriem, University of Jijel (Defense 08/07/2007).

Bond simulation in reinforced concrete structures: Pull-out test.