

Mohamed KCHAOU RESEARCH CV

Dr. Mohamed KCHAOU

Eng, Ph.D

Assistant Professor

*Department of Mechanical Engineering,
Higher Institute of Applied Science and Technology,
University Of Sousse
Tunisia*



A. General information

30, Married, Tunisian
Route Chaker km 6, Avenu Klifa Tayari,
3013, Sfax-Tunisie
Tel : 22 398 391
Kchaou.mohamed@yahoo.fr

B. Education and academic qualification

Degree		University Awarded	Year
PhD	Joint supervision	National School of Engineers of Sfax (Tunisia) and Central School of Lille (French)	2010
PhD Thesis Titled: Influence of the friction coupling-oxidation on the wear of a tool steel for hot work; development of a specific tribometer			
Master		National School of Engineers of Sfax (Tunisia)	2007
Master Thesis Titled: Study of Sperformance and damage of a copper alloy loaded in torsion fatigue			
Engineering		National School of Engineers of Sfax (Tunisia)	2006

C. Administrative duties and other relevant appointment

No.	Position	Department/Faculty/Other Institution	Year	Duration
1	Head of teaching mechanics	Department of Gear Mechanical Higher Institute of Applied Science and Technology of Gafsa, Tunisia	2007 to 2009	2 years
2	Head of material research working reception	Department of Gear Mechanical Higher Institute of Applied Science and Technology of Gafsa, Tunisia	2007 to 2009	2 years
3	Responsible for the module "Mechanical Systems"	Department of Mechanic Higher Institute of Industrial Systems of Gabes, Tunisia	2010	1 year
4	Member of the Industrial Relations Environment	Department of Mechanical Higher Institute of Industrial Systems of Gabes, Tunisia	2009 to 2010	2 years
5	Industrial training coordinator	Department of Mechanical Engineering, Higher Institute of Applied Science and Technology of Sousse, Tunisia	2020 to date	1 year

D. Research Grants and Scientific international projects

No.	Cooperation project	Title	Date
1	Scientific Living High Level at the Laboratory of Mechanics of Lille (EC Lille)	"Characterization of friction materials"	11 to 25 May 2012
2	Senior Scientist within the framework of French-Tunisian cooperation CMCU / PHC Utica No. 11G112 (IPEI Sfax/EC Lille)	"Performance optimizing of a brake lining material"	14 to 19 November 2011
3	Junior Researcher part of the Project DGRST 09 / R 11-01, CNRS 22,666 (ENI Sfax/EC Lille).	"Optimization of forging brass section, the effect of tool wear"	November 2009
4	- Course of study under the Indo-French project (EC Lille).	"Study of the durability of friction materials under severe stress"	May and June 2007

E. Teaching activities

No.	Name of Courses	Credit Hour	Number of Students	Semester/Academic Year	Level
1	Static Solid, Laboratory	3	150	Sem 1, 2007/08	License
2	Static Solid, Lecture	1.5	150	Sem 2, 2007/08	License
3	Non Destructive Testing, Lecture	1.5	80	Sem 1, 2008/09	License
4	Computer Aided Drafting, Laboratory	3	120	Sem 1, 2009/10	License
5	Knowledge and Technology of Materials, Lecture	2	80	Sem 2, 2009/10	License
6	Strength of Materials, Lecture	1.5	80	Sem 1, 2010/11	License
7	Manufacturing Processes, Lecture	3	50	Sem 1, 2010/11	Master 2
8	Technology Design Approach, Lecture	1.5	70	Sem 2, 2010/11	Master 1

F. Supervision of students

Number	Prog. Level	Name of Students and Title of Thesis/Project	Role	Status	Year Graduated
1	PhD	Nesrine Hentati, <i>The influence of manufacturing parameters of friction materials with organic matrix on braking performance.</i>	Co-supervisor	Ongoing	Expected 2014
2	PhD	Faycal Njeh, <i>Thermo-Mechanical fatigue and wear of hot forging materials</i>	Co-supervisor	Ongoing	Expected 2013
3	PhD	Nabil Bouzayéni, <i>Study of the tribological behavior of brass from different process manufacturing under severe conditions of stress</i>	Co-supervisor	Ongoing	Expected 2012
6	PhD	Amira Sallémi, <i>Study of the components of friction materials for brake application: mechanical and tribological characterization</i>	Co-supervisor	Ongoing	Expected 2014
7	Master	Amel Alimi, <i>Study of the tribological behavior of tool steel X40CrMoV5-1 in coupling friction-oxidation</i>	Co-Supervisor	Ongoing	2012

G. Publications

- Journals published

[A1] **M. Kchaou**, R. Elleuch, X. Boidin, Y. Desplanques
Designing, perfecting and evaluating of a newly developed tribometer for the study of the wear behaviour of forging dies. Journal of Engineering Tribology, Proceedings of the Institution of Mechanical Engineers Part J., Vol. 226, Issue 2, p 111-122, 2012. Impact Factor: 0.8 (Thomson ISI)

[A2] F. Njeh, **M. Kchaou**, R. Elleuch, F. El Halouani
Analysis of Degradation and Failure Mechanisms that Develop in Hot Forging Die. J Fail. Anal. And Preven. DOI: 10.1007/s11668-012-9556-2. (Scopus)

[A3] **M. Kchaou**, R. Elleuch, Y. Desplanques, X. Boidin, G. Degallaix
Failure mechanisms of H13 die on relation to the forging process - A case study of brass gas valves. Engineering Failure Analysis, Vol. 17, Issue 2, p 403-415, 2010. Impact Factor: 0.7 (Thomson ISI)

[A4] **M. Kchaou**, R. Elleuch, Y. Desplanques, X. Boidin, G. Degallaix
Etude du comportement en frottement-usure de l'acier X40CrMoV5-1 pré-oxydé sous faible vitesse de glissement. Annales de chimie-Science des matériaux, Vol. 35, n°1, 2010. Impact Factor: 0.4 (Thomson ISI)

[A5] R. Mnif, **M. Kchaou**, R. Elleuch, F. Halouani
Cyclic behaviour and damage analysis of brass alloy under cyclic loading. J Fail. Anal. And Preven. Vol.7, p 450-455, 2007. (Scopus)

- Conference/Exhibition (Poster/Product/Exhibition/Showcase)

[C1] A. Sellami, **M. Kchaou**, R. Elleuch, Y. Desplanques
Caractérisation tribologique et mécanique d'un matériau de friction. Journées Internationales Francophones de Tribologie 2012, Aix en Provence (France), 9-11 mai 2012.

[C2] N. Hentati, D. Najjar, **M. Kchaou**, A-L. Cristol, R. Elleuch, Y. Desplanques

Experimental study of brake lining molding parameters. Europe's Braking Conference & Exhibition, Eurobrake 2012, Dresden (Germany), 16-18 April 2012.

[C3] N. Hentati, **M. Kchaou**, R. Elleuch, Y. Desplanques

Méthodologie de passage de l'échelle industrielle à l'échelle réduite de l'étape de mélangeage pour la fabrication des matériaux de friction : élaboration et validation. Premier Congrès International Matériaux, Environnement et Durabilité MED 2011, HAMMAMET (Tunisie), 22 - 24 Mars 2012.

[C4] A. Sellami, **M. Kchaou**, R. Elleuch

Effet du laiton sur le comportement en frottement d'une garniture de frein. Premier Congrès International Matériaux, Environnement et Durabilité MED 2011, HAMMAMET (Tunisie), 22 - 24 Mars 2012.

[C5] N. Bouzayéni, **M. Kchaou**, R. Elleuch

Expertise d'une bague de synchronisation usée : identification et analyses des défaillances. 2^{ème} Congrès Tunisien de Mécanique (COTUME'2012), Sousse (Tunisie), 19-21 Mars 2012.

[C6] **M. Kchaou**, R. Elleuch, X. Boidin, Y. Desplanques

Impact de l'oxydation sur l'usure par frottement d'un outil de matriçage. The Forth International Conference on Conception and Modelisation of Mechanical Systems (CMSM 2011), Sousse (Tunisia), 30 Mai- 1 Juin 2011.

[C7] **M. Kchaou**, R. Elleuch, X. Boidin, Y. Desplanques

Réalisation d'un tribomètre pour l'étude des mécanismes d'usure par frottement des matrices de mise en forme à chaud. Journées Internationales Francophones de Tribologie 2010, Albi (France), 27-28 mai 2010.

[C8] **M. Kchaou**, R. Elleuch, Y. Desplanques, X. Boidin, G. Degallaix,

Développement d'un tribomètre pour l'étude de l'effet du cyclage en forgeage à chaud sur l'usure par frottement des matrices. Journées Internationales Francophones de Tribologie 2009, Compiègne (France), 6-7 mai 2009.

[C9] **M. Kchaou**, R. Elleuch, Y. Desplanques, X. Boidin, G. Degallaix

Damage identification of die used to forge gas cylinder valves. 4th International Conference on Advances in Mechanical Engineering and Mechanics (ICAMEM 2008), Sousse (Tunisia), 16-18 December 2008.

[C10] **M. Kchaou**, R. Elleuch, Y. Desplanques, X. Boidin, G. Degallaix
Optimisation du matricage d'articles en laiton ; effet de l'usure des outils. Premiers Journées des doctorants de l'Ecole Doctorale Sciences et Technologie de l'ENIS, Décembre 2008.

[C11] **M. Kchaou**, R. Elleuch, Y. Desplanques, G. Degallaix
Expert diagnosis of failure affecting hot forging die. Premier Congrès Tunisien de Mécanique (COTUME 2008), Hammamet (Tunisia), 17-19 Mars 2008.

[C12] R. Mnif, **M. Kchaou**, R. Elleuch
Influence du pré-écrouissage sur le comportement cyclique en torsion d'un alliage cuivreux. 1^{er} Congrès Tunisien de Mécanique (COTUME 2008), Hammamet (Tunisie), 17-19 Mars 2008.

[C13] **M. Kchaou**, R. Mnif, R. Elleuch
Failure diagnostic of brass alloy under cyclic loading. The Second International Conference on Conception and Modelisation of Mechanical Systems (CMSM 2007), Monastir (Tunisia), 19-21 Mars 2007.

[C14] R. Mnif, **M. Kchaou**, R. Elleuch
Fatigue life analysis and damage behaviour of brass alloy: effects of cyclic torsional overstrain and prestraining. Fatigue design 2007, Senlis (France), 21-22 November 2007.

H. Scientific Industrial Project

No.	Title	Role (Senior/Junior)	Sponsor	Period (year)	Status (Completed/Ongoing)
1	Optimization of the performance of brake lining materials	Senior	Stuga Frein Society, Tunisia	2010-2014	On going
2	Optimization of forging process parameters	Junior	SOPAL Society, Tunisia	2006-2010	Completed

I. Involvement in professional association/organization/body

No.	Name of Association/Organization/Body	Role (President/Secretary/Committee Member/Ordinary Member)
1	Member of The Tunisian Mechanic Association	Member
2	Member of The Ex ENIS Students Association	Member
3	Member of The Assembled Regional Educational	Member and actor