

CURRICULUM VITA

Aref Maalej, PHD

Professor, Engineering School of Sfax

Director of Electro-Mechanical System Laboratory (LASEM)

Senior Expert in Systems & Electro-Mechanical Engineering



Professional Address / Contacts:

Centre d'Expertise et de Service (CES)

Imm. Phinicia – Bloc D, Sfax 3027 - Tunisia

Cell Phone : + 216 98 411 983

Tel: + 216 74 405 039

Fax: + 216 74 405 155

Email: aref.maalej@enis.tn

Diploma:

- 1- Bachelor of Science in Mechanical Engineering, Ohio State University – USA - 1984
- 2- Master of Science in Mechanical Engineering, Ohio State University – USA - 1986
- 3- Master of Science in Mathematics, Ohio State University – USA - 1986
- 4- Doctorate PHD in Mechanical Engineering, Ohio State University – USA - 1989

Professional Positions, Responsibilities & Titles:

- 1- University Professor in System Dynamics, Engineering School of Sfax - Tunisia
- 2- Head of Research Laboratory, LASEM (Electro-mechanical Systems)
- 3- Head of the graduate program in mechanical engineering at the Engineering School of Sfax (ENIS)
- 4- Expert Engineer (Senior) in the Department of Technical Claims, the company SYSTEMS ENGINEERING ASSOCIATES INC. Ohio - U.S.A 1988-1989.
- 5- Legal Expert in Automation and Machinery since 1993, after the order of the JORT January 6, 1995
- 6- Referenced Expert by the Tunisian Federation of Insurance Company (FTUSA) since 1995 in Machinery, Mechanics and Electricity
- 7- Project Engineer: Engineering Department of SHELL-TUNIREX (1986).
- 8- A listed member in the International Expert Witness Network

Professional Affiliations

- 1- TSS : Tunisian Scientific Society - Member (1986 -) - President since 2002
- 2- ASME: Associate Member of "American Society of mechanical Engineers" (84-91)
- 3- IEEE: Member de "Institute of Electrical and Electronics Engineers".(86-92)
- 4- MAA: Member of "Mathematical Association of America". (85-93)
- 5- SAE: Member of "Society of Automotive Engineers" (87-93)
- 6- SPE: Member of "Society of Petroleum Engineers". (96-)

Honor Affiliation & Scholarships

- 1- Contract of Work and Labor as a Speaker at the University of Saarland, Germany - July 2006
- 2- Visiting professor – Paris 6, University France (2009)
- 3- Honor Society of American Engineers: Elected member
- 4- Honor Society of International Scholars: Elected member
- 5- Researcher at Fluid Power Systems Laboratory, Ohio State University, Ohio - USA (1985 - 1986).
- 6- Researcher at "Systems Engineering Associates Inc. Worthington. Ohio, USA (1986 - 1988)

Other Responsibilities

General Chairmen of the International Conference on Advances in Mechanical Engineering (ICAME2006) – 2004 and Co-Chair for the ICAMEM 2006 – Co-Chair of the Coming ICAMEM 2015

Scientific Activities & Production

- 1- Advisor for several students in mechanical engineering at the engineering school of Sfax (Master et Doctorate level students)
- 2- Author of tens of articles published in international scientific journals or presented in international conferences

List of Visited Countries (for Professional and Scientific Missions)

- USA (Long Stay - 8 years)
- India (Multiple Visits – Last in 2012 as member of the official delegate to the joint Tunisian Indian committee)
- Canada (Multiple Visits)

- Spain
- Thailand
- Japan
- China
- Malaysia
- India
- Morocco (Multiple Visits)
- Oman Sultanate
- France (Multiple Visits)
- Germany
- Netherlands (Holland)
- Belgium
- Egypt. (Multiple Visits)
- Libya (Multiple Visits)
- Saudi Arabia (Multiple Visits)
- Syria
- Malta
- Jordan
- UAE (Dubai)
- Iran
- Turkey
- Kenya
- Algeria
- Korea
- Brasil
- Pologne
- Sri-Lanka
- Indonesia

Areas of Expertise

Claims of expertise for Technical Risk and Fire (analysis & evaluation of Causes and Damages)

Failure analysis of products, machines and processes

Evaluation of Goods for Industrial Enterprises.

References:

Technical expertise of Claims (MARETAP, ETAPE, CPG, ALKIMIA ,
STEG , GCT, SONEDE, ONP,)

Industrial Risk Claims (CFTP, OMV, SEREPT, GIE BOUCHAMMAOUI-
STREICHER, TPS, ...)

Prerequisite Evaluation of Goods For insurance (SOCOMENIN,
SOMOCER, SPONGITEX , TEXTIKO , SOGETISS , COGIM , SOFRIP ,
ECRINPLAST, CIS, GALPHARMA, SOPAL, GROUPE MAKHLOUFI,

SANIMED, SOTUMAIL, MIDIMIX (Groupe Chaabouni) , SOFAP et SIPS (Groupe Hammami), TUBOSER,.....)

Evaluation for Integration in the Stock Market : SANIMED, MPBS

Evaluation For Reinstatement of Capitals (SAGAZ ,)

Evaluation of Capitals through Court Mission (SOTIM, BOUKARA Handling and Transport , Metal Industries, FLEXOPRINT , ALKHOUTAF, SOTUPRIN)

Insurance Companies Benefiting from expertise service and Technical

Evaluation of Goods: BIAT INSURANCE, COMAR , GAT , MAE, STAR , ASTREE , MAGHREBIA SALIM, AMI, CARTE, ZITOUNA TAKAFUL, LLOYD, CTAMA,....

References: International Bureaux

CABINET D'EXPERTISE COMPTABLE TIJANI CHAABANE

Member of KS International Network

ROUTE SOUKRA KM 0,5-3029 SFAX

<http://tijani-chaabane.com/>

Phone : +216 74 248 099 • +216 74 248 084

Mobile : +216 24 900 800 +216 98 410 917

Email : tijani.chaabane@planet.tn

contact@tijani-chaabane.com

KETATA Ridha

Expert comptable

Member of the OECT

Member of PrimeGlobal

Route de Ténior km 2 Imm. Les Jumeaux – 3002 Sfax TUNISIE

Tél. 216 74 44 00 99 Fax 216 74 44 45 44

Mobile : 216 25 410 499

E-mail : ridha.ketata@planet.tn

Publications Related to Topics of Expertise

A- Graduate Studies Thesis:

- 1- **Master Thesis in Mechanical Engineering:** "Modeling of Mechanical Friction at the Piston Cylinder Interface". Advisors: prof D. Guenther and Prof. R. Singh.
- 2- **Master thesis in Mathematics:** Large Scale System Model Reduction
- 3- **PhD Dissertation:** "Application of Suspension Derivative Formulation to Ground Vehicle Modeling and Simulation". Advisors: des prof. D. Guenther et Prof J. Ellis.

B- Journal Articles :

- 1- Ayadi Ibrahmi , Hatem Bentaher, Elyes Hamza, Aref Maalej, Abdul M. Mouazen “3D finite element simulation of the effect of mouldboard plough’s design on both the energy consumption and the tillage quality”, 2016, Int J Adv Manuf Technol, Vol. DOI 10.1007/s00170-016-9391-9
- 2- Ayadi Ibrahmi, Hatem Bentaher, Elyes Hamza, Aref Maalej, Abdul M. Mouazen, “Advanced analytical method of mouldboard plough’s design”, 2016, Int J Adv Manuf Technol, Vol. DOI 10.1007/s00170-016-8806-y
- 3- A. Ibrahmi, H. Bentaher, A. Maalej, 2015. Study the effect of tool geometry and operational conditions on mouldboard plough forces and energy requirement: Part 2. Experimental validation with soil bin test Computers and Electronics in Agriculture
- 4- A. Ibrahmi, H. Bentaher, A. Maalej, 2015. Study the effect of tool geometry and operational conditions on mouldboard plough forces and energy requirement: Part 1. Finite element simulation - Computers and Electronics in Agriculture
- 5- Samir Ben Abdallah¹, a, Maher Aidi , Alaeddine Zouari and Aref Maalej Systems engineering used for logistics integration in product design. Journal of Traffic and Logistic Engineering, Vol 3, N° 2, December 2015
- 6- A. Ibrahmi, H. Bentaher, A. Maalej, 2014. Soil-blade orientation effect on tillage forces determined by 3D finite element models. Spanish Journal of Agricultural Research 12 (4), 941-951.
- 7- Dhouibi, S.; Boujelbene, M.; Kharrat, M.; Dammak, M.; Maalej, A.; “An Experimental Investigation of the Effects of Sliding Direction, Sliding History and Sliding Speed”; Journal of Surfaces and Interfaces of Materials; Volume 1, Number 1, March 2013 , pp. 71-76(6)
- 8- Hamdi Hentati , Radhi Abdelmoula , Aref Maalej , Khalil Maalej ; « Numerical analysis solving the elastic dynamic problem “; Int. J. Modelling, Identification and Control, Vol. 19, No. 3, 2013
- 9- Hamdi Hentati ; Radhi Abdelmoula ; Aref Maalej ; Khalil Maalej “Quasi static fracture – Global minimizer of the regularized energy”, Applied Mechanics and Materials (Elsevier), P 97, Vol. 232 in December 2012
- 10- Hamdi Hentati ; Radhi Abdelmoula ; Aref Maalej ; Khalil Maalej “Quasi static analysis of anti-plane shear crack”, Applied Mechanics and Materials (Elsevier), P 92, Vol. 232 in December 2012
- 11- Hamdi Hentati ; Radhi Abdelmoula ; Aref Maalej ; Khalil Maalej “Numerical analysis solving the elastic dynamic problem”, International Journal of Modeling, Identification and Control (Elsevier), submitted in 2012

- 12- S. Rhaïem, M. Dammak And A. Maalej “Experimental and Numerical Studies of Anisotropic Friction”, Journal of Tribology and Surface Engineering; Vol. 2, N° 1-2, 2011, pp. 21-32.
- 13- S. Dhouibi, M. Boujelbene, M. Kharrat, M. Dammak, A. Maalej: “Effects of sliding kinematics and normal load on the tribological behavior of metal/polymer contact”, Materials Science and Engineering C 29 (2009) 1521–1526
- 14- M. Ben Amar, M. Maatar, A. Y Maalej, “Experimental and Numerical Analysis of the Effect of Gear Center Distance Variation and Misalignment error on the Dynamic behaviour of narrow faced Spear Gear Drives”, Mécaniques et Industrie, Vol 7. pp 71-78 (2006)
- 15- W. MAsmoudi, H. Chtourou, A.Y. Maalej, “A Simulation and Expert System Based Approach for Machine Sizing of Production Systems”, Journal of Manufacturing Technology, Vol 17, N° 2, pp187-198 (2006).
- 16- M. Slim Abbes, T. Fakhfakh, M. Haddar, A.Y. Maalej , “ Effect of transmission error on the dynamic behaviour of gearbox housing” (2006).
- 17- M. Damak, M. Kharrat, M. Abid and A. Maalej: "Effect of torque loading on the pull-out response of a steel post inserted in polyethylene cylinder", Journal of Adhesion Science and Technology, Vol 20, N° 11, pp. 1189-1198, 2006
- 18- Wassim Masmoudi, Hédi Chtourou, Aref Y. Maalej (2006), "A simulation-expert-system-based approach for machine sizing of production systems", Journal of Manufacturing Technology Management, Vol.17, No. 2
- 19- H. Chtourou, W. Masmoudi, A.Y. Maalej, “An Expert System for Manufacturing Systems machine Selection”, Journal of Expert Systems with Applications, Vol 28, pp 461-467 (2005)
- 20- S.Rhaïem, M.Dammak, A.Shirazi-Adl, W.Mesfar and A.Maalej. “Combined experimental and finite element studies of anisotropic friction” J. Mater. Sci. Technol., Vol.20, Suppl.1, 2004, pp11-14
- 21- M. Kamoun, M. Ksouri, S. Gabsi. A. Maalej, "Identifications des Paramètres du Refroidisseur à Grilles de Cimenterie", Journal Européen des systèmes automatisés (1996)
- 22- A. Maalej, D. Guenther and J. Ellis "Suspension Derivatives in Vehicle Modeling and Simulation", - International Journal of Vehicle Design (Fifth International Conference of the International Association of Vehicle Design) Geneva, Switzerland, March 1989.
- 23- A. Maalej, D. Guenther, and J. Ellis,"Modelling of Tire Friction Forces and Moments ", International Journal of Vehicle Design, Vol 10, No 1 (1989).

- 24- A. Maalej, D. Guenther and J. Ellis, "Suspension Derivatives for a Kinematic Suspension Model", International Journal of Vehicle Design (Fifth International Conference of the International Association of Vehicle Design) Geneva, Switzerland, March 1989.
- 25- A. Maalej, "A Unified Method of Large Scale System Model Reduction", Les Annales de l'ENIT, Vol 2. No. 2. Juillet 1988.
- 26- A. Maalej, D. Guenther, R. Singh, "Effect of Friction on the Dynamic Response of an Actuator", NEPC Journal Vol 1. No. 1. June 1988 (Aussi dans les Proceedings du '42nd National Fluid Power Conference - ASME- March 1987')