**CURRICULUM VITAE**

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| **C:\Users\adam\Desktop\c bureau\bureau fevrier 2015 2015 2015 2015\these\photo auteur.jpgLast name : Hassen** **First name : Walid****Marital Status : married , 2 Childs** **Nationality : Tunisian****Date and place of birth : June 24th, 1978 at Gabes, Tunisia****Address : Engineering School of Monastir, University of Monastir****Tel : (+216)97237682** **E-mail :** **hassen.walid@gmail.com** **;** **walid.hassen@rnu.enim.tn** |

**Academic qualifications**

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| * **Habilitation thesis to supervise research in energy engineering: second PhD: 2019, Engineering School of Monastir, University of Monastir.**
* **Degree of Doctor-Engineer in energy engineering: PhD: 2015, Engineering School of Monastir, University of Monastir.**
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| * **Master's degree in energy Engineering: 2003, Engineering School of Monastir, University of Monastir.**
* **Post-graduate diploma (DESS) in industrial design from University of the Mediterranean (French).**
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| * **Degree of Engineer in energy engineering: 2002, Engineering School of Monastir, University of Monastir.**
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| * **Technical Baccalaureate: June 1997, Technical School of Monastir.**
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Employment history

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| **University/Institution (Employer)** | **From** | **To** | **Job Title/Rank****(Position)** | **Responsibilities****(Teaching, administration…)** |
| **National School of Engineers of Monastir** | **9/2015** | **Present** | **Assistant Professor (Energy engineering)** | **Teaching/** **member of the Accreditation Committee/****member of the jury for the selection of teaching assistants** |
| **High Institution of Technological Studies of kasr hellal** | **9/2009** | **9/2015** | **Assistant (Chemical process engineering)** | **Teaching/Head of department/ Member of Scientific council** |
| **High Institution of Technological Studies of Gabes** | **9/2004** | **9/2009** | **Assistant (Chemical process engineering)** | **Teaching** |
| **Faculty of Sciences of Gabes** | **12/2003** | **9/2004** | **Assistant (Physics)** | **Teaching** |
| **Faculty of Sciences of Monastir** | **9/2003** | **12/2003** | **Assistant (Physics)** | **Part time teaching** |

**Taught courses**

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| **Heat transfer**  |
| **Fluid mechanics**  |
| **Renewable energies**  |
| **Industrial cooling** |
| **Energy efficiency**  |
| **Reliability and preventive maintenance** |
| **Energy and environmental context** |
| **Furnace and boiler technologies**  |
| **Process controls and regulations** |
| **Industrial mixer technologies**  |
| **Water treatments**  |
| **Applied thermodynamics** |

### Languages

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| **Language proficiency** | Reading | **Writing** | **Speaking** |
| **Excellent** | **Good** | **Average** | **Excellent** | **Good** | **Average** | **excellent** | **Good** | **Average** |
| **Arabic** | **x** |  |  | **x** |  |  | **x** |  |  |
| **English** | **x** |  |  | **x** |  |  |  | **x** |  |
| **French** | **x** |  |  | **x** |  |  | **x** |  |  |

**Computer use and software**

**Word, Excel, Power Point, Gambit, Paint shopPro, Grapher, Surfer, Tecplot, hydronautics, Permacare, IMSdesign, Auto-Cad, ANSYS FLUENT, TRNSYS, Visual Basic, Hysys-Aspen, Turbo pascal, Fortran, Delphi,.**

Trainings

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| **Use of infrared cameras and power grid quality control instruments by FLUKE industry** |
| **TRNSYS simulation Studio 18** |
| **ANSYS 15.0** |
| **Pedagogy and andragogy for higher education** |
| **ISO 14000 Environmental management** |
| **Training session in Technical and economic choice of steam production equipment** |
| **Training session in Water and waste treatment** |
| **Training session in photovoltaics : SEFRA** |
| **Training session in** **Photovoltaic solar systems : French National Institute of Solar Energy** |
| **Training session in Sizing and design of Renewable Energy Systems** |
| **Soft skills: Stress and time management** |
| **Soft skills: Personal development** |
| **Soft skills: Motivation of learners** |
| **workshop on electric and hybrid automotive technologies** |
| **Tutoring in open distance learning** |

Other academic contributions / participation in the organization of training courses …

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| **President of international congresses on engineering and sustainable development, Tunisia , ICESD 2019** |
| **Member of organization committee of 1st day University - Industry** |
| **Member of organization committee of The first MATLAB training session** |
| **Participation in organizing a training session in optimization of industrial controllers** |
| **Participation in organizing a training session in university pedagogy** |
| **head of engineering process department, Higher Institution of Technological Studies of Kasr hellal** |
| **Member of the Scientific committee, Higher Institution of Technological Studies of Kasr hellal** |

Research collaborations / Scientific supervision

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| **Cooperation in research with Mr. Traoré philippe: University of Poitiers, France · Mechanical department.**  |
| **Cooperation in research with Mr. Alberto Pérez: Department of Electronics and Electromagnetism, Faculty of Physics, University of Seville, Spain.** |
| **Project Manager of the International Master's Degree in Renewable Energy at the University of Kassel (Germany) and University of Monastir (Tunisia)** |
| **Scientific supervision of Senior projects for energy engineering.** |
| **Scientific supervision of Senior projects of licenses in chemical process engineering.**  |
| **Contribution in supervision of number of master projects in energy engineering** |
| **Contribution in supervision of number of Phd projects in energy engineering** |

**Hobbies**

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| **Sports (Basket Ball)** |
| **Traveling** |

Publications

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| 1. Walid Hassen, Mohamed Issam Elkhazen, Phillipe Ttraoré, Mohamed Naceur Borjini, Charge injection in horizontal eccentric annuli filled with a dielectric liquid, ***European Journal of Mechanics / B Fluids***, Vol 72, (2018) 691-700
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| 1. Walid Hassen, Lioua Kolsi, Hakan F. Oztop, Abdullah A.AA Al-Rashed, Mohamed Naceur Borjinia, Khaled Al-Saleme, Electro-thermo-capillary-convection in a dielectric liquid subjected to a strong unipolar injection, ***Applied Mathematical Modelling***, Vol 63, (2018) 394-361.
 |
|
| 1. Walid Hassen, Hakan F. Oztop, Lioua Kolsi, Mohamed Naceur Borjini, Nidal Abu-Hamdeh, Analysis of the electro-thermo-convection induced by a strong unipolar injection between two concentric or eccentric cylinders, ***Numerical Heat Transfer, Part A: Applications***, Vol 71, issue 7 (2017).
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| 1. Walid Hassen, Meryem Dhrioua, Lioua Kolsi, Veerabathiran Anbumalar, Abdullah A.A.A Al-Rashed, Mohamed Naceur Borjini, CFD Modeling of Gas-Particles Flow in a Circulating Fluidized G-Volution Gasification Reactor, ***International Journal of Mechanical Sciences***, Vol 144, (2018) 438-451.
 |
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| 1. Mohamed Issam Elkhazen, Walid Hassen, Lioua Kolsi, Hakan F.Oztop, Abdullah A.A.A. Al-Rashed, Mohamed Naceur Borjini, Nidal Abu-Hamdeh. Heat transfer intensification induced by electrically generated convection between two elliptical cylinders, ***International Journal of Thermal Sciences***, Vol 135, (2019) 523-532.
 |
| 1. Kaouther Ghachem, Walid Hassen, Chemseddine MAATKI, Lioua Kolsi, Abdullah Alrashed, Mohamed Naceur Borjini, Numerical simulation of 3D natural convection and entropy generation in a cubic cavity equipped with an adiabatic baffle, ***International Journal of Heat and Technology***, Vol 36, (2018) 1047-1054.
 |
|
| 1. Mohamed Issam Elkhazen, Walid Hassen, Hakan F. Oztop, Lioua Kolsi, Abdullah A.A.A Al-Rashed, Mohamed Naceur Borjini, Khaled Al-Salem, Electro-thermo-convection in dielectric liquid subjected to partial unipolar injection between two eccentric cylinders, ***International Journal of Numerical Methods for Heat and Fluid Flow***, Vol 29 (2018) 78-93.
 |
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| 1. Abdullah Al-Rashed, Walid Hassen, Walid Aich, Lioua Kolsi, Badreddine Ayadi, Mohamed Naceur Borjini, Oscillatory Natural Convection of Water-Glycerin Mixture in a tall Rectangular Cavity: Transition to the Chaos, ***Heat Transfer-Asian Research***, Vol 47 (2018), 943-956.
 |
|
| 1. Abdullah Al-Rashed, Walid Hassen, Lioua Kolsi, Hakan Oztop, Ali J. Chamkha, Nidal Abu-Hamdeh, Three-dimensional analysis of natural convection in a nanofluid-filled parallelogrammic enclosure opened from top and heated by a square heater, ***Journal of Central South University***, Vol 25 (2018) .
 |
|
| 1. Mohamed Issam Elkhazen, Walid Hassen, Rahma Gannoun, Ahmed Kadhim Hussein, Mohamed Naceur Borjini, Numerical study of electro-convection in a dielectric layer between two co-focal elliptical cylinders subjected to a unipolar injection, ***Journal of Engineering Physics and Thermophysics***, (2019).
 |
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| 1. Emtinene Lajnef, Walid Hassen, Lioua Kolsi, Abdullah A.A.A. Al-Rashed, Rajab Al-Sayegh, Mohamed Naceur Borjini, Magneto-thermocapillary-buoyancy convection in a square cavity with partially active vertical walls, ***Thermal Science***, Vol 23, No.3 (2018) DOI: 10.2298/TSCI180126142L
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| 1. Rahma Gannoun, Walid Hassen, Mohamed Issam Elkhazen and Mohamed Naceur Borjini, Numerical Study of Pure Electroconvection and Combined Electro-Thermo-Convection in Horizontal Channels, ***International Journal of Engineering TRANSACTIONS B: Applications*** Vol. 30, No. 8 (2017) 1154-1162.
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| 1. Chemseddine Maatki, Walid Hassen, Lioua Kolsi, Naif AlShammari, Mohamed Naceur Borjini and Habib Ben Aissia, 3D Numerical Study of Hydromagnetic Double Diffusive Natural Convection and Entropy Generation in Cubic Cavity, ***Journal of Applied Fluid Mechanics***, Vol 9, No. 4 (2016) 1915-1925.
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| 1. Hassnia Hajji, Lioua Kolsi, Walid Hassen, Abdullah A.A.A. Al-Rashed, Mohamed Naceur Borjini, Mohamed Ahmed Aichouni, Finite element simulation of antigen-antibody transport and adsorption in a microfluidic chip, ***Physica E: Low-dimensional Systems and Nanostructures***, Vol 104 (2018) 177-186.
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| 1. Mohamed Toumi, Soumaya HadjSalah, Walid Hassen, Salwa Marzouk, Habib Ben Aissia, Jacque Jay, Three-dimensional study of parallel shear flow with variable density around an obstacle, ***Mechanics & Industry***, Vol 18, (2017) 505-518.
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| 1. Abdullah Al-Rashed, Lioua Kolsi, Ahmed Kadhim Hussein, Walid Hassen, Mohamed Aichouni and Mohamed Naceur Borjini, Numerical study of three-dimensional natural convection and entropy generation in a cubical cavity with partially active vertical walls, ***Case Studies in Thermal Engineering***, Vol 10 (2017) 100-110 .
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| 1. Maryem Dhrioua, Walid Hassen, Lioua Kolsi, Veerabathiran Anbumalar, Mohamed Naceur Borjini, Preliminary Hydrodynamic Study on New Multi-stage Biomass Gasifier, ***IEEE Xplore***, ISSN: 2378-3451, DOI : 10.1109/IREC.2018.8362564.
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| 1. Walid Hassen, Mohamed Naceur Borjini and Habib Ben Aissia, Enhanced Heat transfer by unipolar injection of electric charges in differentially heated dielectric liquid layer, ***Fluid Dynamics & Materials Processing (FDMP),*** Vol.8, No.4, (2012) 381-395
 |
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| 1. Walid Hassen, Mohamed Naceur Borjini, Phillipe Traoré and Habib Ben Aissia, Electroconvection between coaxial cylinders of arbitrary ratio subjected to strong unipolar injection, ***Journal of electrostatics***, Vol.71, (2013) 882-891.
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| 1. Walid Hassen, Mohamed Issam Elkhazen, Phillipe Traoré and Mohamed Naceur Borjini, Numerical study of the electro-thermo-convection in an annular dielectric layer subjected to a partial unipolar injection, ***International Journal of Heat and Fluid Flow***, Vol 50 (2014) 201–208.
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| 1. Walid Hassen, Phillipe Traoré, Mohamed Naceur Borjini and Habib Ben Aissia, Numerical study of electro-thermo-convection in a differentially heated cavity filled with a dielectric liquid subjected to partial unipolar injection, ***International Journal of Engineering Transactions C: Aspects***, Vol. 28, No. 9 (2015) 1343-1350.
 |
| 1. Lioua Kolsi, Bechir Ben Hamida, Walid Hassen, Ahmed Kadhim Hussein, Mohamed Naceur Borjini S. Sivasankaran, Suvash C. Saha, Mohamed M. Awad, Farshid Fathinia and Habib Ben Aissia, Experimental and Numerical Investigations of Transient Natural Convection in Differentially Heated Air-Filled Tall Cavity, ***American Journal of Modern Energy***, Vol 1, No 2 (2015) 30-43.
 |
| 1. Maryem Dhrioua, Walid Hassen, Lioua Kolsi, Veerabathiran Anbumalar, Mohamed Naceur Borjini, Effects of the combustor size on the fluidized bed hydrodynamics of a novel multi-stage biomass gasifier, The 6th International Conference on Emerging and Renewable Energy: Generation and Automation (ICEREGA18), 28-30 October 2018, in Sousse, Tunisia
 |
| 1. Maryem Dhrioua, Walid Hassen, Lioua Kolsi, Veerabathiran Anbumalar, Mohamed Naceur Borjini, Preliminary Hydrodynamic Study on New Multi-stage Biomass Gasifier, The 9th International Renewable Energy Congress (IREC 2018), March 20-22, 2018, Hammamet, Tunisia.
 |
| 1. Maryem Dhrioua, Walid Hassen, Lioua Kolsi, Veerabathiran Anbumalar, Mohamed Naceur Borjini, Cold Flow Model of a Novel Three-stage Biomass Gazifier, International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC), January 28-29, 2018, Tamil Nadu, India.
 |
| 1. Rahma Gannoun, Walid Hassen, Mohamed Naceur Borjini, Habib Ben Aissia, Effet de l'électroconvection pure sur l'écoulement du fluide dans un canal horizontal, XIéme Congrés international sur les Energies Renouvelables et l'environnement (CERE 2017) Mars 29-31, 2017, Hammamet, Tunisia.
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| 1. Hassnia hajji , Lioua Kolsi, Walid Hassen, Mohamed NaceurBorjini, HabibBen Aissia, Etude numérique d’un écoulement dans un microcanal à élargissement brusque et effet d’obstacle, International Congress on Energetic and Environmental Systems (IEES-2017), November17-19th, 2017, Djerba, Tunisia
 |
| 1. Rahma Gannoun, Walid Hassen, Mohamed Naceur Borjini, Habib Ben Aissia, Electrode arrangement impact on heat transfer in horizontal channels, 1st International Workshop on Electro-Hydro-Dynamics and Triboelectrostatics (IWEHD), Poitiers, 2016
 |
| 1. Mohamed Issam Elkhazen, Walid Hassen, Mohamed Naceur Borjini, Numerical Study of Electro-Convection in a Dielectric Layer between two Co-Focal Cylinders Subjected to a Unipolar Injection, 3rd Annual International Conference on Engineering, 20-23 June 2016, Athens, Greece.
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| 1. Walid Hassen, Mohamed Issam Elkhazen, Rahma Gannoun, Mohamed Naceur Borjini, Étude numérique du développement des instabilités électro-thermo-convective et thermocapillaire dans une couche de liquide diélectrique soumise à une injection unipolaire, Refrigeration Energy and Environment, IREEC, Hammamet, 2016.
 |
| 1. Mohamed Issam Elkhazen, Walid Hassen, Mohamed Naceur Borjini, Etude de l’électro-thermo-convection dans une couche de liquide diélectrique confinée dans un espace annulaire elliptique et soumise à une injection unipolaire. Refrigeration Energy and Environment, IREEC, Hammamet, 2016
 |
| 1. Rahma Gannoun, Mohammed Isssam ElKahzen, Walid Hassen, Mohamed Naceur Borjini, Habib Ben Aissia, Electrode arrangement impact on heat transfer in horizontal channels, Refrigeration Energy and Environment, IREEC, Hammamet, 2016.
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| 1. Walid Hassen, Mohamed Naceur Borjini et Habib Ben Aissia, Influence de la force de coulomb sur les phénomènes d'électro-thermo-convection dans le cas d’une injection forte, congres international sur les matériaux et l’énergie CIMATEN 2014, 14-16 décembre 2014-Sousse, Tunisie.
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| 1. Mohamed Issam Elkhazen, Walid Hassen, Mohamed Naceur Borjini et Habib Ben Aissia, Modélisation numérique de l’électro-convection dans une couche diélectrique confinée dans un espace elliptique et soumise à une injection unipolaire, congrès international sur les matériaux et l’énergie CIMATEN 2014, 14-16 décembre 2014-Sousse, Tunisie.
 |
| 1. Walid Hassen, Mohamed Naceur Borjini and Habib Ben Aissia, Study of the Phenomenon of Electroconvection in a Dielectric Annulus Layer Subjected to a Radial Unipolar Injection: Effect of Eccentricity, International Symposium on Computational and Experimental Investigations on Fluid Dynamics CEFD’2013, March 18-20, 2013, sfax, TUNISIA. (oral Communication)
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| 1. Walid Hassen, Mohamed Naceur Borjini and Habib Ben Aissia, Numerical Approach of the Electro-Thermo-Convective Motion in an Annular Dielectric Layer Subjected to a Partial Unipolar Injection, 9th International conference, Heat Transfer, Fluid Mecanics and Thermodynamics (HEFAT), Malta 16-18 Juillet 2012.
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| 1. Walid Hassen, Mohamed Naceur Borjini and Habib Ben Aissia, Numerical study of the structure of electro-thermo-convective flow in dielectric liquid layer subjected to a partial unipolar injection, 6th European Thermal Sciences Conference France Poitiers (Futuroscope) 03-06 Septembre 2012.
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| 1. Walid Hassen, Mohamed Naceur Borjini et Habib Ben Aissia, Augmentation du transfert thermique dans une couche de liquide diélectrique différentiellement chauffée et soumise à une injection unipolaire de charges électriques par le bas, 5éme congrès international sur les énergies renouvelables et l’environnement (CERE) Sousse 04-06 Novembre 2010. (Communication orale)
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| 1. Walid Hassen, Mohamed Naceur Borjini et Habib Ben Aissia, Étude de l’électro-convection dans une cavité carrée différentiellement chauffée : effet de la position du plan injecteur, 10ème Congrès de Mécanique du Maroc (CMM) Oujda–Maroc 19-22 avril 2011.
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| 1. Walid Hassen, Mohamed Naceur Borjini and Habib Ben Aissia, Étude de l’électro-thermo-convection dans une couche de liquide diélectrique confinée dans un espace annulaire d’axe horizontal et soumise à une injection unipolaire interne, 15èmes Journées Internationales de Thermique (JITH) Tlemcen – Algérie 24-26 Septembre 2011.
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| 1. Walid Hassen, Mohamed Issam Elkhazen, Mohamed Naceur Borjini, Contribution à l’étude de l’électro-thermo-convection dans les nanofluides dans une cavité différentiellement chauffée, 9èmes Journées Tunisiennes sur les Ecoulements et les Transferts, JTET2016, Hammamet, 19-21 décembre 2016.
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| 1. Mohamed issam El Khazen, Walid Hassen, Mohamed Naceur Borjini, Etude numérique de l'electro-thermo-convection dans les espaces annulaires excentriques, 9èmes Journées Tunisiennes sur les Ecoulements et les Transferts, JTET2016, Hammamet, 19-21 décembre 2016.
 |
| 1. Rahma Gannoun, Walid Hassen, Mohamed Naceur Borjini, BEN AISSIA Habib, Effet de l’Optimisation de la disposition des électrodes sur l’intensification de transfert de chaleur dans un canal horizontal, 9èmes Journées Tunisiennes sur les Ecoulements et les Transferts, JTET2016, Hammamet, 19-21 décembre 2016.
 |
| 1. Rahma Gannoun, Walid Hassen, Mohamed Naceur Borjini, Habib Ben Aissia, Effet de l'électroconvection pure sur l'écoulement du fluide dans un canal horizontal, XIéme Congrés international sur les energies renouvelables et l'environnement CERE, Hammamet, 2017.
 |
| 1. Walid Hassen, Mohamed Naceur Borjini et Habib Ben Aissia, Analyse par simulation numérique d'un écoulement électro- hydrodynamique entre plusieurs pointes et une plaque plane, Troisième Congrès Tunisien de Mécanique 24-26 Mars 2013 – Sousse, Tunisie
 |
| 1. Walid Hassen, Mohamed Naceur Borjini et Habib Ben Aissia, Influence du facteur de forme sur le développement de l’instabilité électroconvective d’une couche de liquide diélectrique, dans des cavités rectangulaires allongées horizontalement, 8èmes Journées Tunisiennes sur les Ecoulements et les Transferts 29 Nov-1 Déc 2013 – Sousse, Tunisie
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| 1. Walid Hassen, Mohamed Naceur Borjini et Habib Ben Aissia, Simulation numérique d'un panache électro-hydro-dynamique entre une lame et une plaque plane, 8èmes Journées Tunisiennes sur les Ecoulements et les Transferts 29 Nov-1 Déc 2013 – Sousse, Tunisie
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| 1. Walid Hassen, Mohamed Naceur Borjini et Habib Ben Aissia, Modélisation numérique de l’instabilité électro-convective dans une couche diélectrique confinée dans un espace annulaire et soumise à une injection unipolaire, 7 éme Journées Tunisiennes sur les Ecoulement et les Transferts (JTET) Tozeur 20-22 Décembre 2010
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| 1. Walid Hassen, Nejla Mahjoub et Hatem Mhiri, Étude de la dispersion d’un polluant en phase liquide, 7éme Colloque National de Recherche en Physique (CNRP) Yasmine Hammamet 21-24 Décembre 2003
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