

## CURRICULUM VITAE

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**Scholar.google:** <https://scholar.google.com/citations?user=lybcQq4AAAAJ&hl=fr&oi=ao>

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matériaux «LGEM» University of Biskra, Algerie

# BIOGRAPHY

Dr Nourredine Belghar est Professeur à l'Université de Khenchela, en Algérie. Il a obtenu son Diplôme d'Ingénieur en 1991, son Master en 2003, son Doctorat en 2011, et son Habilitation (HDR) en 2015, tous dans le domaine de l'Énergie. Ses recherches se concentrent sur le développement de techniques numériques et expérimentales pour relever des défis en physique, biomatériaux, énergie, et dynamique des fluides. Il a particulièrement travaillé sur l'intégration de codes de dynamique des fluides numérique (CFD) et leur application aux matériaux thermiques, à la bioconvection, aux biomatériaux à base de fibres naturelles pour l'isolation thermique, aux calculs énergétiques, au contrôle de la pollution, et à l'acoustique par le biais de simulations numériques.

Dr. Belghar est auteur ou co-auteur de plus de 26 articles dans des revues à comité de lecture et de plus de 60 présentations dans des conférences internationales. Il a également été activement impliqué dans l'organisation et la participation aux comités scientifiques de plusieurs conférences scientifiques nationales et internationales. Actuellement, il est membre du Laboratoire de Génie Énergétique et Matériaux (LGEM), et Chef d'Équipe au laboratoire des matériaux environnementaux, méthodes chimiques et développement durable à l'Université de Biskra, en Algérie.

## Activités pédaogiques

Cours de mécanique des fluides; Cours de cryogénie; Cours de fluidisation ; Cours de transfert de chaleur; Cours de physique

## Livres et supports de cours

[B01] Falek Mokhtar , Moumni Mustafa ,**Nourredine Belghar “ Polycopie Biophysique “ Cours Exercices et travaux pratique** , Janvier 2016, Université Mohamed khider Biskra

[B02] **Nourredine Belghar**, TALBI kamel “**Polycopié initiation aux transfert de chaleur par conduction**” Janvier 2015, Université Mohamed khider Biskra

[B03] Falek Mokhtar **Nourredine Belghar “Thermodynamique physique”** Année 2020, Université Mohamed khider Biskra

[B03] Linda Aissani, Zied Driss, **Nourredine Belghar** : Élaboration et caractérisation des couches minces: Technologie et développement, Éditeur : ACADEMIQUES (30 septembre 2022) Langue : Français Broché : 116 pages ,ISBN-10 : 3841625908 ISBN-13 : 978-3841625908

[B04] Linda Aissani, Zied Driss, **Nourredine Belghar** “ Elaboration and characterisation of thin films » Our Knowledge Publishing (April 27, 2024) Publisher : Our Knowledge Publishing (April 27, 2024) Language:English Paperback : 76 pages ISBN-10: 207439902 ISBN-13 : 978-6207439904.

## Chapitres dans des livres

[CH 1 ] Kamel Chadi, Aymen Mohamed Kethiri, **Nourredine Belghar**, Belhi Guerira and Zied Driss ,”CFD Simulation of the Heat Transfer using a CuO-water Nano-fluid in Different Cross-sections of Mini-channels”, ISBN (Online): 978-981-4998-18-5 ISBN (Print): 978-981-4998-19-2 ©2021, Bentham Books imprint.ISBN (Paperback): 978-981-4998-20-8 Published by Bentham Science Publishers Pte. Ltd. Singapore. All Rights Reserved. Books Publication, Mechanical Engineering Technologies and Applications, 2021, 22-34.

[CH 2 ] Kamel Chadi, Nora Boultilf, **Nourredine Belghar**, Aymen Mohamed Kethiri, Zied Driss and Belhi Guerira,” Numerical Study of the Influence of Nano-fluid Type on Thermal Improvement in a Three “Dimensional Mini Channel Mechanical Engineering Technologies and Applications, 2021, 22-34.Bentham Science Publishers PteISBN (Online): 978-981-4998-18-5 ISBN (Print): 978-981-4998-19-2 ©2021, Bentham Books imprint. ISBN (Paperback): 978-981-4998-20-8 Published by Bentham Science Publishers Pte. Ltd. Singapore. All Rights Reserved.Mechanical Engineering Technologies and Applications, 2021, 22-34.

[CH 3 ]Sara Fares, Linda Aissani, Abdehak Ayad, Nouredine Belghar and Zied Driss “Structural and Mechanical Properties of Ti-N Films – Abinitio Calculations and Experiment” Mechanical Engineering Technologies and Applications Volume: 3 Pp: 106-117 (12) DOI: [10.2174/9789815179279123030011](https://doi.org/10.2174/9789815179279123030011)

## ENCADREMENT ET CO-ENCADREMENT DE THÈSES:

Encadrement de 8 doctorants spécialisés en biomatériaux, énergie, dynamique des fluides et domaines connexes.

## LISTES DES PUBLICATIONS

### Journals Publication

[P01] Numerical study of the optimization of the thermal and flow characteristics of a collector design of microchannels with two inlets and outlets, containing a nanofluid and a water-based fluid”,Kamel Chadi **Nourredine Belghar** ,Mohammed Lachi ,Zied Driss &Abdeslam Bencid ,Received 26 Feb 2024, Accepted 15 May 2024, Published online: 30 May 2024, <https://doi.org/10.1080/10407782.2024.2357586>

[P02] A thermophysical investigation of the potential for the use of wastepaper for insulation building materials Mohamed Aymen Kethiri, Mourad Chikhi , **Nouredine Belghar** and Belhi Guerira, International Wood Products Journal Volume 15, Issue 1 ,<https://doi.org/10.1177/20426445241241366>

[P03] Improvement of heat transfer in microchannels using nanofluids by numerical contribution on a sinusoidal shaped dissipator. Lakroune Abdelghani, Guerira Belhi, **Belghar Nouredine**, Litouche

Billel, Rebai Billel, Studies in Engineering and Exact Sciences, Volume 5 ,Numéro2, Pages e9848-e9848, <https://doi.org/10.54021/seesv5n2-404>.

[P04] Numerical investigation of fluid flow and heat transfer of a nanofluid around two circular cylinders arranged in tandem in horizontal duct R Mebrouk, I Rezaiguia, M Kadja, F Hachichi, AA Saad, N Belghar, Studies in Engineering and Exact Sciences 5 (2), e7423-e7423, <https://doi.org/10.54021/seesv5n2-157>

[P05] Physical, chemical, and thermal behaviour of date palm leaflet as potential reinforcement material for green composites MA Kethiri, **N Belghar**, M Chikhi, A Hachaichi, C Beldjani, Y Bouter, Biomass Conversion and Biorefinery, 1-10

[P06] Experimental study on the effect of date palm powder on the thermal and physico-mechanical properties of gypsum mortars MA Kethiri, **N Belghar**, M Chikhi, Y Bouter, C Beldjani, C Tedeschi Sustainability 16 (7), 3015.

[P07] Free convection and entropy generation inside porous cavities with irregular vertical walls nonuniformly heated from below Chihab Eddine Brahmi, Mouna Maache Battira, Nourredine Belghar, Mahmoud Kalfali, Rachid Bessaih, Numerical Heat Transfer, Part A: Applications <https://doi.org/10.1080/10407782.2024.2359046>

[P08] Modeling and Estimation of New Prediction of the Global Solar Irradiation on Horizontal Areas: A Comprehensive Analysis. Boulouf, Soufounizia and Chabane, Foued and **Belghar Nourredine**, Available at SSRN: <http://dx.doi.org/10.2139/ssrn.4798963>

[P09] Heat Exchange Optimization by Adding Baffles to Streaming Duct of Solar Air Collector, Z. Aouissi, F. Chabane<sup>1</sup> M. S. Tegua **N. Belghar**, N. Moumni, A. Brima, Iranian (Iranica) Journal, 2022

[P10] Obstacle's effects and their location inside the square cavity on the thermal performance of Cu-Al<sub>2</sub>O<sub>3</sub>/H<sub>2</sub>O hybrid nanofluid, Farid Hachichi, **Nourredine Belghar**, Chadi Kamel, Momen S. M. Saleh, Mahfoud Kadja, Mohammed Lachi, Ali J. Chamkha, Journal Heat Transfer Wiley Pages: 3411-3430.

[P11] Impact of geometric shape of cavity on heat exchange using Cu-Al<sub>2</sub>O<sub>3</sub>-H<sub>2</sub>O hybrid nanofluid, CHADI Kamel, BATTIRA Mouna Maache, SALEH Momen S. **Nourredine BELGHAR** LACHI Mohammed et CHAMKHA Ali J. (2022) *Waves in Random and Complex Media* (octobre 19), p. 1-18.

[P12] Effect of the addition of pie-shaped ribs and parallelogram ribs in micro-channels on thermal performance using diamond-water nanofluid, Chadi, K., **Belghar, N.**, Guerira, B., Lachi, M., Chikhi, M. SN Applied Sciences, Volume 3, Issue 3, March 2021, Article number 316

[P13] Numerical computation of natural convection in an isosceles triangular cavity with a partially active base and filled with a Cu-water nanofluid, I Rezaiguia, M Kadja, R Mebrouk, **N Belghar** Heat and Mass Transfer 49 (9), 1319-1331

[P14] Effect of Chemicals Treatments on the Morphological, Mechanical, Thermal and Water Uptake Properties of Polyvinyl Chloride/Palm Fibers Composites. H Bousseh, DE Mazouzi, **N Belghar**, B Guerira, M Lachi Revue Des Composites et Des Matériaux Avancés 29 (1)

[P15] Numerical investigation of incompressible fluid flow and heat transfer around a rotating circular cylinder R Bouakkaz, K Talbi, Y Khelil, F Salhi, **N Belghar**, M Ouazizi Thermophysics and Aeromechanics 21, 87-97

- [P16] Exact solution of Schrödinger equation in (anti-) de Sitter spaces for hydrogen atom  
M Falek, **N Belghar**, M Mourni The European Physical Journal Plus 135, 1-12
- [P17] Effect of aspect ratios and sinusoidal temperature on heat exchange inside cavity filled with hybrid nanofluids MSM Saleh, S Mekroussi, S Kherris, D Zebbar, **N Belghar**, AJ Chamkha  
Journal of Nanofluids 12 (2), 476-486.
- [P18] Effect of rotating cylinder on nanofluid heat transfer in a bifurcating grooved channel equipped with porous layers, MSM Saleh, S Mekroussi, S Kherris, Y Boutera, MT Bouzaher, **N Belghar**, ...  
International Journal of Modern Physics B, 2350289
- [P19] Exact solutions of Pauli oscillator with Snyder–de Sitter algebra, B Guerira, M Falek, M Mourni, **N Belghar** - International Journal of Modern Physics A, 2022
- [P20] Numerical simulation of aerodynamics performance for winglet in the low speed compressible flow M Belkhiri, A Boulahia, **N Belghar** Institut de Physique, Université des Frères Mentouri, Constantine
- [P21] S Exact solutions of Pauli oscillator with Snyder–de Sitter algebra B Guerira, M Falek, M Mourni, **N Belghar** International Journal of Modern Physics A 37 (13), 2250069
- [P22] Evaluation of Thermal Stratification Inside a New Model of Spherical Water Storage Tank Using a Computational Fluid Dynamics 6 Degrees of Freedom Solver Mohamed Taher Bouzaher, **BELGHAR** Noureddine, CE Bensaci, N Bouchahm, B Guerira Journal of Thermal Science and Engineering Applications 12, 031003-1.
- [P23] Influence of types of nanoparticles, nanoparticles volume concentration and types of cooler metals on the heat transfer in a mini-channel cooler, Kamel Chadi, **Nourredine Belghar**, Belhi Guerira, Zied Driss, *Metallurgical and Materials Engineering* 26 (1):121-35.
- [P24] Three-Dimensional Numerical Study of Thermal Exchanges in Different Geometry Sections of Mini-Channels Using Three Different Nanoparticles”. Kamel Chadi, **Nourredine Belghar**, Zied Driss, MESSAOUDI Issam *Metallurgical and Materials Engineering* 26 (1): 26 (1):103-19.
- [P25] Effect of the position of parallelogram ribs in micro channel on heat transfer using diamond nanoparticles ”. Kamel Chadi, **Nourredine Belghar**, Zied Driss, Belhi Guerira, *Metallurgical and Materials Engineering* 26 (1): 26 (1):103-19.
- [P26]. An experimental study and a numerical simulation of the turbulent flow under the vortex finder of a cyclone separator, K Talbi, Z Nemouchi, A Donnot, **N Belghar**, Journal of Applied Fluid Mechanics 4 (1), 69-75.

## LISTE DES CONFÉRENCES PUBLICATION

[C1] DAAS Ammara ,DERFOUF Semchedine ,**BELGHAR Nourredine** “Les différents procédés d'obtention des nanoparticules destinés aux nano-fluides”, First Conference on Mechanical, Energy and Material Engineering "CMEME 2015" Université de Biskra.

[C2] **BELGHAR Nourredine** ,LEBIHI Sassi”Etude numérique de l'échange thermique à travers un canal en présence d'un nanofluide “”, First Conference on Mechanical, Energy and Material Engineering "CMEME 2015" Université de Biskra.

[C3] **BELGHAR Nourredine**,**KROUMA Saadia** “ Influence de la concentration des nanoparticules dans un fluide sur le champ thermique dans une cavité” First Conference on Mechanical, Energy and Material Engineering "CMEME 2015" Université de Biskra.

[C4] DAAS Ammara ,DERFOUF Semchedine ,**BELGHAR Nourredine** Refroidissement par convection libre d'une source de chaleur localisée au fond d'une enceinte remplie de nano-fluides aux particules de Cuivre” Journée d'études sur la fonderie et l'environnement JEFE '16,Université d'ANNABA,2016.

[C5] Chadi, Kamel, **BELGHAR Nourredine**, Guerira belhi, Messaoudi Aissam,Simulation numérique de l'échange thermique dans une enceinte rectangulaire, en présence d'un nano-fluide , Troisième conférence internationale sur l'énergie, les matériaux l'énergétique appliquée et la pollution « CIEMEAP'16 Université de Constantine ,2016.

[C6] BENTAHAR Ramdhan, DERFOUF Semcheddine, **BELGHAR Nourredine**,Guerira belhi, “ Les fibres végétales des régions arides et semi arides proposées comme renforcement dans les matériaux composites” Séminaire National sur la technologie des matériaux & applications SNMTA 2018 Université El Oued.

[C7] GUETTAF Temam Tahher,DERFOUF Semcheddine Guerira belhi, **BELGHAR Nourredine**,Influence de l'humidité sur les caractéristiques mécaniques des polymères thermoplastiques Troisième conférence internationale sur l'énergie, les matériaux l'énergétique appliquée et la pollution « CIEMEAP'16 Université de Constantine ,2016 .

[C8]BENTAHAR Ramdhan, DERFOUF Semcheddine Guerira belhi, **BELGHAR Nourredine** “Observation optique et caractère mécanique de la fibre bio Agave Américaine” 1ère Conférence Euromaghrébine des Bio Composites Université Cadi Ayad Marrakech Maroc, 2016.

[C9]BENTAHAR Ramdhan, DERFOUF Semcheddine Guerira belhi, **BELGHAR Nourredine** “Observation optique et caractère mécanique de la fibre bio LUFFA ” 1ère Conférence Euromaghrébine des Bio Composites Université Cadi Ayad Marrakech Maroc, 2016.

[C10] DAAS Ammara ,DERFOUF Semchedine ,**BELGHAR Nourredine** « Preparation and Structural properties of Copper (Cu) Nano Particles » ARab Conference on Mechanical Engineering, ARCME'17,Université de Biskra Algérie 2017.

[C11] Chadi, Kamel, **BELGHAR Nourredine**, Guerira belhi, Falek Mokhtar “Influence de la géométrie des mini canaux d'un refroidisseur sur les échanges thermiques”,ARab Conference on Mechanical Engineering, ARCME'17,Université de Biskra Algérie.2017.

[C12] DAAS Ammara ,DERFOUF Semchedine ,CHEHAT Abdemadjid ,**BELGHAR Nouredine** Etude Numérique d'un échangeur à tubes coaxiaux en forme de U utilisant un nanofluide, Quatrième conférence internationale sur l'énergie, les matériaux l'énergétique appliquée et la pollution « ICEMEAP'18 », Université de Constantine,2018.

[C13]CHADI Kamel ,**BELGHAR Nouredine** “Numerical study of nanofluids and the volume fraction of nanoparticles on the thermal exchange in trapezoidal mini-channels “The 2nd International Symposium on Mechatronics and Renewable Energies E n e r g i e s 2 0 1 8 EL OUED, Algeria 2018

[C14] CHADI Kamel ,**BELGHAR Nouredine**” Etude numérique du transfert thermique dans des différentes géométries des mini canaux”,international Symposium on Technology & Sustainable Industry Development,ISTSID'2019 EL OUED, Algeria, 24-26 February 2019.

[C15] Belhi Guerira, Hedi Kechaou, Abderazek Bezazi, Paulo reis, Zied driss, **Nouredine BELGHAR**, Ayemn Mhamdi Study The meshing effect in the computation fluid mechanics International Conferenceon On Mechanics and Energy,(ICME 2021), December 27-29-2021, Souse, Tunisia.

[C16] Ayemn Mhamdi, Zied driss, **Nouredine BELGHAR**, Paulo reis, Abderazek Bezazi , Belhi Guerira , Hedi Kechaou , “Material effect on the heat gain of a building air conditioning”, International Conferenceon On Mechanics and Energy,(ICME 2021), December 27-29-2021, Souse, Tunisia

[C17] Mourad Chikhi, M-Amine Kethiri, Razika Mehdaoui, **Nouredine BELGHAR** and, Belhi Guerira A New green Materials for Algerian Construction 2nd Global Virtual Summit on Advances in Materials, Physics & chemistry science February 18-19, 2021an Yuzuncu Yil University, Turkey.

[C18] Chadi, Kamel, **BELGHAR Nouredine**, Guerira belhi, Messaoudi Aissam , ,Zied DRIS Comparison of thermal exchanges between two mini channels of a cooler using diamond water nano-fluid Fifth International Conferenceon Enetry, Materials,Applied Energeticsand Pollution (ICEMAEP'19), October22-24, Constantine,Algeria.

[C19] Guerira Belhi , **BELGHAR, Nouredine** “The morphological, mechanical and water absorption properties of polyvinyl chloride/date fiber composites” International Workshop on Polymeric materials On 23rd and 24rd November at Ferhat Abbes Steif univesity1 Algeria.

[C20] Belhi GUERRIRA, Boussehel Hamida & **BELGHAR noureddine** ,” thermal and mechanical properties of polyvinyl chloride / acetylated palm fiber composites” Fifth International Conference on Energy, Materials, Applied Energetics and Pollution. ICEMAEP2019, October22-24, 2019, Constantine,Algeria.

[C21] Kamel CHADI, Guerira Belhi, **BELGHAR Nouredine**, Messaoudi aissam,” Numerical study of nanofluids on the thermal exchange in mi ni-channels”, 1<sup>st</sup> International Conference on Nanofluids and the 2nd European Symposium on Nanofluids held in Castelló (Spain) from 26th to 28th June 2019 <http://www.icnf2019.com/index.php/papers/publication>.

[C22] K. Chadi, **N. BELGHAR**, B. Guerira, M. Falek,,C.E. Bensaci and A. Messaoudi Numerical study of the transfer in different geometries of the mini-channels 1<sup>st</sup> International Conference on Nanofluids and the 2nd European Symposium on Nanofluids held in Castelló (Spain) from 26th to 28th June 2019 <http://www.icnf2019.com/index.php/papers/publication>

[C23] Tahar GUETTAF TEMAM, GUERIRA Belhi, **BELGHAR Nouredine** Etude des Propriétés Mécaniques des Composites à Base de Fibres Végétales Fifth International Conference on Energy, Materials, Applied Energetics and Pollution. ICEMAEP2019, October22-24, 2019,

Constantine,Algeria.

[C24] Kamel CHADI,**BELGHAR Nourredine**,BelhiGuerira, Messaoudi Aissam,Zied DRISS “Comparison of thermal exchanges between two mini channels of a cooler using diamond-water nano-fluid”, Fifth International Conference on Energy, Materials, Applied Energetics and Pollution. ICEMAEP2019.

[C25] GUERIRA Belhi , Bouzaher, Mohamed taher, GUETTAF TEMAM, Taher, **BELGHAR, Nourredine**” Identification des paramètres du fluage par la méthode iso- contrainte étagée des thermoplastiques The 2nd International Symposium on Mechatronics and Renewable Energies E n e r g i e s 2 0 1 8 EL OUED, Algeria <http://dspace.univ-loued.dz/xmlui/handle/123456789/1717>.

[C26] Kamel CHADI,**Belghar Nouredine**, Messaoudi aissam,Guerira, Belhi ,Numerical study of the influence of nanofluids and the volume fraction of nanoparticles on the thermal exchange in trapezoidal mini-channels The 2nd International Symposium on Mechatronics and Renewable Energies E n e r g i e s 2 0 1 8 EL OUED, Algeria <http://dspace.univ-loued.dz/handle/123456789/1736>

[C27] Ramdane BEN TAHAR, Semcheddine DERFOUF, **Nourredine BELGHAR** & Belhi GUERRIRA, « Caractère Mécanique de la fibre bio « Luffa » », Conférence Euro-Maghrébine des Biocomposites Euromaghreb, **2016**, Marrakech MAROC.

[C28] Semcheddine DERFOUF, Ramdane BEN TAHAR, **Nourredine BELGHAR** & Belhi GUERRIRA, « Caractère Mécanique de la fibre bio « AGAVE » », Conférence Euro-Maghrébine des Biocomposites Euromaghreb, 2016 Marrakech MAROC.

[C29] Mourad Chikhi, M-Amine Kethiri, Razika Mehdaoui, **Nouredine Belghar** and Belhi GueriraA “New green Materials for Algerian Construction” 2nd Global Virtual Summit on Advances in Materials, Physics and Chemistry Science February 18-19, 2021London, England,<https://conferencealerts.com/show-event?id=232288>

[C30] Abboudi Abdelaziz, Allaoui Abdelhalim, Ghelani Laala, Rahab Mohamed Bouziane, **Nourredine Belghar** “Impact of heat effects on the behavior of the head of the pion-disc system in MoZrN” International Conference on Mechanics and Energy (ICME’2021) from 27 to 29th December 2021,sousse Tunisia <https://icme.aicme.net>.

[C31]Linda Aissani, **Nourredine Belghar**, Abderrahmane Cheriet, Mourad Zaabat”Microstructure and mechanical properties of sputtering Zr-N coatings” International Conference on Mechanics and Energy (ICME’2021) from 27 to 29th December 2021,sousse Tunisia <https://icme.aicme.net>.

[C32]Ghelani Laala, Abboudi Abdelaaziz, Allaoui Abdelhalim, **Belghar Nourredine**”Microstructural and electrochemical analysis of Ni-SiC composite coatings produced by electrodeposition”, International Conference on Mechanics and Energy (ICME’2021) from 27 to 29th December 2021,sousse Tunisia <https://icme.aicme.net>

[C33] Chadi Kamel , Momen Sami Mohammed Saleh , **Belghar Nourredine** , Said Mekroussi , Kherris Sahraoui Numerical study of the effect of Rayleigh number on streamlines and isotherms in different cavity shapes” 1 st International Conference on Materials Science and Engineering - (ICMSE 2021) November 17-18, 2021, Khenchela, Algeria <http://tele-ens.univ-khenchela.dz>



[C34] Momen Sami Mohammed Saleh , Ghelani Laala , Kherris Sahraoui , **Belghar Nourredine** , Said Mekroussi , Zebbar djelal impact of W-baffled obstacle in a cavity on heat exchange using ferro-nanofluid 1 st International Conference on Materials Science and Engineering - (ICMSE 2021) November 17-18, 2021, Khenchela, Algeria <http://tele-ens.univ-khenchela.dz>

[C35] “Three dimensional numerical simulation of the effect of different nanofluids on thermal exchange in mini-channels” K. Chadi, A. M. Kethiri, **N. Belghar**, B. Guerira, Z. Driss, 9<sup>ème</sup> journées des sciences de l'ingénieur JSI'2020, 25-27 Septembre 2020, Sfax, TUNISIE.

[C36] “CFD simulation of the heat transfer using a Cu-water nano-fluid in different cross-sections of mini-channels” K. Chadi, A. M. Kethiri, **N. Belghar**, B. Guerira, Z. Driss, 9<sup>ème</sup> journées des sciences de l'ingénieur JSI'2020, 25-27 Septembre 2020, Sfax, TUNISIE

[C37] Kamel Chadi, Belhi Guerira, **Nourredine Belghar**, Mohammed Lachi, Zied Driss. “The influence of the movement of a wall of a trapezoidal cavity containing an inlet and an outlet of the cooling of a hot source located inside the cavity in the presence of a nanofluid.” The Second International Conference on Materials, Energy & Environment (MEE'2023) October 23-24, 2023 in El Oued – Algeria.

[C38] Kamel Chadi, Farouk Laidoudi, **Nourredine Belghar**, Belhi Guerira, Zied Driss and Mohammed Lachi. « Numerical study of the impact of the shape and direction of ventilation of a heat sink on the cooling of an electronic chip.” The Second International Conference on Materials, Energy & Environment (MEE'2023) October 23-24, 2023 in El Oued – Algeria.

[C39] Nadia annane, **Nourredine Belghar**, Kamel Chadi “Analytical study of energy storage by the integration of PCM in old and new buildings and new buildings.” The Second International Conference on Materials, Energy & Environment (MEE'2023) October 23-24, 2023 in El Oued – Algeria.

[C40] Kamel Chadi, Belhi Guerira, Farouk Laidoudi, **Nourredine Belghar**, and Mohammed Lachi, « Numerical study of the effect of the presence of an obstacle inside the channel on the cooling of a heat sink using a hybrid nanofluid », Second Arab Conference on Mechanics and Engineering (ARCME'23), December 10-12, 2023, Biskra.

[C41] Kamel Chadi, Farouk Laidoudi, **Nourredine Belghar**, Belhi Guerira and Mohammed Lachi « Contribution to the Study of the Effect of the Dimensions of the Heat Sink on the Cooling of Electronic Chips », Second Arab Conference on Mechanics and Engineering (ARCME'23), December 10-12, 2023, Biskra.

### **Responsable ou membre d'un projet de recherche**

1. President for a research project PRFU entitled “Amelioration des échanges thermiques à l’usage de la nanotechnologie’ from 01/01/2018 as of 12/31/2022.
2. Member for a research project CNPRU, entitled “adaptation des Nano fluides aux échanges thermiques’ from 01/01/2015 as of 31/12/2019.
3. Member for a AMAZING Project: Politecnico di Milano and Biskra University
4. Member for a Erasmus+ KA107, Biskra University and Politecnico di Milano University,

## **Animation scientifique**

1. Member of the Scientific Committee and Participant at First Conference on Mechanical, Energy and Material Engineering "CMEME 2015" University of Biskra. Algeria.
2. Member of the Scientific Committee and Participant at ARCME'17, ARab Conference on Mechanical Engineering, University of Biskra. Algeria.
3. Member of the Scientific Committee and Participant at International Symposium on Technology & Sustainable Industry Development, ISTSID'2019, University of EL OUED, Algeria
4. Member of the Scientific Committee, Session chair and Participant at Quatrième conférence Internationale sur l'énergie, les matériaux l'énergétique appliquée et la pollution « ICEMEAP'18 » University of Constantine Algeria.
5. Member of the organizing committee at International Workshop rediscovering sustainability : Architecture heritage in the Aures area,2019 polytechnic of milan and mohamed khider Biskra university.
6. Member of the Scientific Committee and Participant at the first international conference on Materials, Energy,Environment 2020,University of EL OUED, Algeria
7. Member of the Scientific Committee, Session chair and Participant at Quatrième conférence Internationale sur l'énergie, les matériaux l'énergétique appliquée et la pollution « ICEMEAP'18 » University of Constantine Algeria.
8. Member of the Scientific Committee, Session chair and Participant at Quatrième conférence Internationale sur l'énergie, les matériaux l'énergétique appliquée et la pollution « ICEMEAP'18 » University of Constantine Algeria.
9. Member of the Scientific Committee, Session chair and Participant at Quatrième conférence Internationale sur l'énergie, les matériaux l'énergétique appliquée et la pollution « ICEMEAP'18 » University of Constantine Algeria.
10. Member of the Scientific Committee, Session chair and Participant at 9<sup>ème</sup> journées des sciences de l'ingénieur JSI'2020, Sfax, TUNISIE
11. Member of the Scientific Committee, Session chair and Participant at 9<sup>ème</sup> journées des sciences de l'ingénieur JSI'2021, , Sfax, TUNISIE
12. Member of the Scientific Committee, Session chair and Participant at 9<sup>ème</sup> journées des sciences de l'ingénieur JSI'2022, , Sfax, TUNISIE
13. Member of the Scientific Committee, Session chair and Participant at 9<sup>ème</sup> journées des sciences de l'ingénieur JSI'2023, , Sfax, TUNISIE
14. Member of the Scientific Committee, Session chair and Participant at 9<sup>ème</sup> journées des sciences de l'ingénieur JSI'2024, , Sfax, TUNISIE