

Les Alleees Ben Boulaid, Batiment C/411.  
05000 BATNA / ALGERIA  
Email : [y.demagh@univ-batna2.dz](mailto:y.demagh@univ-batna2.dz)  
Tel: +213 (0) 658269946 - +213 (0) 553702514



## Yassine DEMAGH

### Civil state

Married, four child  
49 years on January 5<sup>th</sup> , 2019

### Degrees & Qualifications

- 1988 – 1992, University of Batna -Algeria  
**Engineer in Mechanical Energetics**
- 2002 University of Batna  
**Magister degree in Mechanical Energetics**
- 2013 University of Batna  
**Doctoral degree in Mechanical Energetics**
- 2017 University of Batna  
**Habilitation**

### Professional experience

- **From October 16<sup>th</sup> , 1994 to October 22<sup>nd</sup> , 2002**  
Hamma-Bouziiane cement Plant / Constantine/ Algeria

#### Positions:

**Engineer method**, from 10/16/94 to 11/22/96

**Senior Mechanical Engineer (Crushing zone)**, from 11//23/96 to 04/18/98

**Engineer method**, from 04/19/98 to 03/31/2002

**Senior Mechanical Engineer (rotary kiln zone)**, from 04/01/02 to 10/22/2002

- **From November 1<sup>st</sup> , 2002 to October 30 , 2016**

#### **University researcher**

Department of mechanical Engineering, Faculty of Sciences and technology/ Jijel University-Algeria

- **From November 1<sup>st</sup> , 2016 to date**

#### **University researcher**

Department of mechanical Engineering, Faculty of technology/  
University of Batna 2 –Algeria

**International  
Journal papers**

- DEMAGH, Y., BEN MOUSSA, H., LACHI, M., NOUI, S. and BORDJA, L., **Surface particle motions in rotating cylinders: Validation and similarity for an industrial scale kiln**, Powder Technology, Vol. 224, pp. 260-272 (2012).
- Lyes Bordja, Emilia Crespo del Arco, Eric Serre, DEMAGH Yassine, **Effet of an axial magnetic field on the first transition to unsteady thermal convective regime in a counter- rotating von Kármán flow**, Begell House Inc Conference Proceedings (2012), DOI: [10.1615/ICHMT.2012.ProcSevIntSympTurbHeatTransfPal.80](https://doi.org/10.1615/ICHMT.2012.ProcSevIntSympTurbHeatTransfPal.80) .
- DEMAGH Yassine, BORDJA Ilyes, KABAR Yassine, BENMOUSSA Hocine, **A design method of an S-curved parabolic trough collector absorber with a three-dimensional heat flux density distribution**. Solar Energy 122 (2015), pp. 873-884. DOI: 10.1016/j.solener.2015.10.002
- DEMAGH Yassine, KABAR Yassine, Lyes Bordja, Samira Noui. **The 3D Heat Flux Density Distribution on a novel parabolic trough wavy absorber**. AIP Conf. Proc. 1734, 070004 (2016); doi: 10.1063/1.4949151
- El Wardi Bitam, Yassine Demagh, Ahmed A. Hachicha, Hocine Benmoussa, Yassine Kabar. **Numerical investigation of a novel sinusoidal tube receiver for parabolic trough technology**. Applied Energy 218 (2018) 494–510.
- Yassine Demagh, Yassine Kabar and El Wardi Bitam. **The Novel Undulated Parabolic Trough Receiver: Performance Enhancement, Reduction in the Size and Cost of the Collector Fields**. International Solar Energy Society (ISES) Conference Proceedings, doi:10.18086/swc.2017.04.03 Available at <http://proceedings.ises.org>.
- Yassine Demagh, Ahmed A. Hachicha. **Key Aspects of a Novel Undulated Receiver for Parabolic Trough Collectors**. International Solar Energy Society (ISES) Conference Proceedings, doi:10.18086/swc.2017.04.02 Available at <http://proceedings.ises.org>

**International  
conference papers**

- DEMAGH, Y., BENMOUSSA, H. et BENDAAS, M. C., **Modélisation par éléments finis des transferts thermiques dans le four de la cimenterie de Hamma-Bouziane/Constantine.**, 1st International Congress of Mechanics

CIMC'02, Constantine, Algeria, December 14-16, 2002.

- NOUI S., DEMAGH Y., HAMIDANE, A., BENMOUSSA, H., **Numerical simulation of the species transport and gaseous in a furnace**, 1<sup>st</sup> International Seminar on FLUID DYNAMICS AND MATERIALS PROCESSING, Algiers, June 2-5, 2007.
- BENMOUSSA, H., DEMAGH, Y., **Détermination numérique du champ de températures dans la paroi d'un four rotatif de cimenterie " prédiction du phénomène de croûtage"**, 16th French Congress of Mechanics CFM 2003- Nice, September 1-5, 2003.
- DEMAGH, Y. et NOUI, S., **Numerical simulation of flows in a clinker cooler**, International Conference on MODELLING AND SIMULATION (MS'08 Jordan), Petra-Jordan, November 18-20, 2008
- DEMAGH YASSINE, Mohammed LACHI, Hocine BENMOUSSA, Guillaume POLIDORI, NOUI S., **Etude des champs dynamique de la matière granulaire dans les fours rotatifs de cimenterie**, 20th French Congress of Mechanics CFM 2011, Besançon, August 28<sup>th</sup> - September 2<sup>nd</sup> : n°674, pp. 1-6 (2011).
- L. Bordja, Y. Demagh, Y. Kabar, R Bessaih, **Magnétohydrodynamique de la convection naturelle en double diffusion dans une cavité en présence d'une source de chaleur**, 16th International Thermal Days JITH 2013, 13-15 November, 2013, Marrakech, Maroc.
- L. Bordja, Y. Demagh, Y. Kabar, R Bessaih, **Etude numérique de la convection naturelle thermosolutale dans une cavité carrée avec source de chaleur**, 11th Franco-Québécois Inter-University Symposium on Thermal Systems (CIFQ2013), 3-5 June, Reims 2013, France.
- DEMAGH Yassine, KABAR Yacine, BERRAHIL Farid, BORDJA Lyes, **Écoulement des particules surfaciques des lits granulaires dans les cylindres rotatifs : une approche originale**, 21th French Congress of Mechanics CFM 2013, Bordeaux, 26-30 august 2013 ;  
url : <http://hdl.handle.net/2042/52479> ;
- Bordja Lyes, Torchane Soumia, Demagh Yassine, et Bessaih Rachid, **Etude numérique de la convection mixte dans une**

**cavité a face supérieure mobile avec un effet thermique non uniforme sur les deux parois latérales**, Seventh edition of the francophone symposium in energy, environment, economy and thermodynamics COFRET'14, CNAM – August 23-25, Paris 2014.

- DEMAGH Yassine, Kabar Yassine, Lyes Bordja, Samira Noui. **The 3D Heat Flux Density Distribution on a novel parabolic trough wavy absorber**. The International SolarPACES Conference 2015. Cape-town, South Africa. October 13-16, 2015.
- DEMAGH Yassine, Bordja Ilyes, Yassine Kabar, Hocine Ben moussa. **Thermal enhancement in parabolic trough collectors by the use of a novel wavy absorber**. The International SolarPACES Conference 2015. Cape-town, South Africa. October 13-16, 2015.
- Yassine DEMAGH, Hocine Ben Moussa. **Conception, Design et Etude d'une Nouvelle Génération d'Absorbeurs pour les Capteurs Solaires à Concentration Linéaire**. The 3rd International Mechanics Conference I.C.M'2017, Annaba, Algeria. 26-27 Avril, 2017.
- Yassine DEMAGH, Yassine Kabar and El Wardi Bitam. **The Novel Undulated Parabolic Trough Receiver: Performance Enhancement, Reduction in the Size and Cost of the Collector Fields**. Solar World Congress 2017, Abu-Dhabi, UAE, October 29<sup>th</sup> - November 2<sup>nd</sup>, 2017.
- YASSINE DEMAGH, Ahmed A. Hachicha. **Key Aspects of a Novel Undulated Receiver for Parabolic Trough Collectors**. Solar World Congress 2017, Abu-Dhabi, UAE, October 29<sup>th</sup> – November 2<sup>nd</sup>, 2017.
- Lyes Bordja, YASSINE DEMAGH, Yassine Kabar, Houda Tria, Imane Ouarghi. **Modélisation numérique d'un collecteur solaire parabolique**. Le 4ème Séminaire International sur les Technologies Mécaniques Avancées, Tlemcen, Algeria, 14-15 November, 2017.
- YASSINE DEMAGH and Ilyes Bordja, **A 1D Thermal Model for PTR Including Pressure Drop and Kinetic Energy Change within the Fluid: Conventional Absorber Tube vs. S-Curved**. The International SolarPACES Conference 2018. Casablanca, Maroc. October 2-5, 2018.
- Lyes Bordja, YASSINE DEMAGH, Yacine Kabar, **Etude**

**numérique d'une nouvelle configuration des tubes absorbeurs de forme sinusoïdale dans les concentrateurs cylindro-paraboliques.** International Conference on Advanced Mechanics and Renewable Energies ICAMRE2018, Boumerdes, November 28 & 29, 2018.

- Alladdine Achi, Yassine Demagh, **2D Numerical Study of Boiling Models with OpenFoam.** The 2<sup>nd</sup> INTERNATIONAL WORKSHOP ON STRUCTURAL MECHANICS AND MATERIALS, Batna, December 17 & 18, 2018.

**National  
conference**

- Yassine Demagh. **Etude et Designe d'une Nouvelle Generation d'Absorbeurs pour les Capteurs Solaire Cylindro-paraboliques.** Journée d'étude organisée par LPEA, université Hadj Lakhdar-Batna1, 16 Mai 2017.
- Yassine Demagh. **Les Aspects Clés du Nouvel Absorbeur Ondulé pour les Capteurs Solaire à Concentration Linéaire.** National Process Engineering Seminar SNGP2017, December 2017, 11-12, Eloued, Algeria ;
- Yassine Demagh. **De l'Idée Novatrice à la Concrétisation Théorique: Développement d'un Nouvel Absorbeur d'Energie pour Capteurs Solaires à Concentrations Linéaires.** National Seminar on Renewable Energies and sustainable development SNERDD-18, June 25- 26, 2018, Batna, Algeria.
- Aladdine Achi, Yassine Demagh. **Génération Directe de la Vapeur d'Eau dans les unités Solaires Cylindro-Paraboliques.** National Seminar on Renewable Energies and sustainable development SNERDD-18, June 25-26, 2018, Batna, Algeria.

Lemya Bekhouche, Sakina Baddek, Yassine Demagh. **Etude Comparative entre Absorbeurs d'Energies Type Cylindro-Parabolique.** National Seminar on Renewable Energies and sustainable development SNERDD-18, June 25-26, 2018, Batna, Algeria.

**Patents**

- DEMAGH Yassine, 2015. **Absorbeur d'énergie muni d'un tube possédant des formes courbées en "S" à usage dans les collecteurs solaires.** DZ/P/2015/000073. (INAPI National Patent)
- DEMAGH Yassine, 2016. **ENERGY ABSORBER PROVIDED WITH A TUBE HAVING S-SHAPED CURVES FOR USE**

**IN SOLAR COLLECTORS.** WO/2016/124207 (WIPO International Patent).