

# Production Scientifique ECAM-EPMI LR2E 2023

Total 43 en 2023 : 25 articles, 3 chapitres et 15 communications

## I. ARTICLES DE REVUES INTERNATIONALES PUBLICATIONS LR2E en 2023

25 articles en 2023 et 3 chapitres

- 1) **M. El Yassi, I. El Abbassi**, A. Pierre, Y. Mélinge (2023) Comparative study of two materials combining a standard building material with a PCM. *FDMP-Fluid Dynamics & Materials Processing*, 19(5), 1283-1290. <https://doi.org/10.32604/fdmp.2022.023183>
- 2) **Mustapha, F.**, El Yassi, M., **El Abbassi, I.**, Kaci, A., Kadri, E., **A.-M. Darcherif** (2023). Numerical Study on the Combined Use of Corten Steel and Phase Change Materials in Container-Type Houses. *FDMP-Fluid Dynamics & Materials Processing*, 19(4), 953-958. <https://doi.org/10.32604/fdmp.2022.022028>
- 3) Naaza, C., El Barkany, A., **Absi, R.**, **El Abbassi, I.** (2023). Mechanisms of collapse and scouring of bridges around the world: literature review and future trends, *International Journal on Technical and Physical Problems of Engineering* (IJTPE), Volume 15, Issue 55, Number 2, pp. 230-236.
- 4) **Meliani M.**, El Barkany A., **El Abbassi I.**, **Absi R.**, Jeffali F. (2023). A robust control strategy for Microgrid Energy using Fuzzy Logic, *Management and Production Engineering Review*, 14(1), pp. 127–136, <https://doi.org/10.24425/mper.2023.145371>
- 5) **Naaza, C.**, El Barkany, A., **Absi, R.**, **El Abbassi, I.** (2023). Scouring of Bridges: Numerical and Experimental Studies, *International Journal of Engineering Trends and Technology*, 71(2), pp. 432–439 <https://doi.org/10.14445/22315381/IJETT-V71I2P244>
- 6) **Zine, O.**, Taoukil, D., **El Abbassi, I.**, Laaroussi N., Kadri, E.-H., Lahlaouti, M.L., El bouardi, A., Experimental and theoretical thermal investigation of bio-composite panels based on sawdust particles, *Journal of Building Engineering*, 2023, 76, 107251. <https://doi.org/10.1016/j.jobe.2023.107251>
- 7) **Zine, O.**, Taoukil, D., Ouakarrouch, M., **El Abbassi, I.**, Lahlaouti, M.L., El Bouardi, A., Valorization of Moroccan Hemp Waste: Study of the Possibility of its Use in Thermal and Acoustical Insulation of Buildings, *International Journal of Engineering Research in Africa*, 2023, 65, pp. 35–54. <https://doi.org/10.4028/p-Wa98e1>
- 8) **Nedjar A.**, Chaker A. **Absi R.**, Lahmer Y., Bennacer R., Performance study of PVT system for cold production by adsorption in a Mediterranean climate: Foodstuffs preservation, *Journal of Thermal Science and Engineering Applications*, ASME, Paper No: TSEA-23-1036 <https://doi.org/10.1115/1.4062866>
- 9) Kumbhakar M., Tsai C. W., **Absi R.** (2023). Semi-Analytical Modelling of Sediment-Laden Open-Channel Flows with the Effects of Stratification, Hindered Settling, and Eddy Viscosities, *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 33, 083113. <https://doi.org/10.1063/5.0157383>
- 10) **Tarraf W.**, Queiros-Condé D., Ribeiro P. **Absi R.** (2023) Fractal geometric model for statistical intermittency phenomenon, *Entropy*, 25(5), 749; <https://doi.org/10.3390/e25050749>
- 11) **Absi R.**, Tanaka H. (2023) Analytical eddy viscosity model for turbulent wave boundary layers: application to suspended sediment concentrations over wave ripples, *Journal of Marine Science and Engineering*, 11(1), 226. <https://doi.org/10.3390/jmse11010226>

- 12) Belmahdi F., Lazri M., Ouallouche F., **Labadi K.**, **Absi R.**, Ameur S. (2023) Application of Dempster-Shafer theory for optimization of precipitation classification and estimation results from remote sensing data using machine learning, *Remote Sensing Applications: Society and Environment*, Elsevier, **29**, 100906. <https://doi.org/10.1016/j.rsa.2022.100906>
- 13) Di Nucci C., **Absi R.** (2023) Comparison of Mean Properties of Turbulent Pipe and Channel Flows at Low-to-Moderate Reynolds Numbers, *Fluids*, **8**(3), 97; <https://doi.org/10.3390/fluids8030097>
- 14) Mohia Y., **Absi R.**, Lazri M., **Labadi K.**, Ouallouche F., Ameur S. (2023) Quantitative Estimation of Rainfall from Remote Sensing Data Using Machine Learning Regression Models, *Hydrology*, **10**(2), 52; <https://doi.org/10.3390/hydrology10020052>
- 15) **Absi, R.** (2023) Suspended Sediments in Environmental Flows: Interpretation of Concentration Profiles Shapes, *Hydrology*, **10**(1), 5 <https://doi.org/10.3390/hydrology10010005>
- 16) Yang, P., Wang, R., Fu, H., **Absi, R.**, Bennacer, R., Yang, X., La, P. (2023) Wear properties of titanium microalloying carbide austempered ductile iron and refining mechanism of TiC on M3C, *Wear*, Elsevier, **516–517**, 204603. <https://doi.org/10.1016/j.wear.2022.204603>
- 17) Sen S., Kundu S., **Absi R.**, Ghoshal K. (2023) A model for coupled fluid velocity and suspended sediment concentration in an unsteady stratified turbulent flow through an open channel, *Journal of Engineering Mechanics*, ASCE, American Society of Civil Engineers, **149**(1) [https://doi.org/10.1061/\(ASCE\)EM.1943-7889.0002158](https://doi.org/10.1061/(ASCE)EM.1943-7889.0002158)
- 18) A. Belghit, M. Lazri, F. Ouallouche, **K. Labadi**, and S. Ameur (2023), “Optimization of One versus All-SVM using AdaBoost algorithm for rainfall classification and estimation from multispectral MSG data”, *Advances in Space Research*, Volume 71, Issue 1, pp. 946-963. <https://doi.org/10.1016/j.asr.2022.08.075>
- 19) Mohia Y., Ouallouche F., Lazri M., **Labadi K.**, Ameur S. (2023) Classification of Precipitation Intensities from Remote Sensing Data Based on Artificial Intelligence Using RF Multi-learning, *Journal of the Indian Society of Remote Sensing*, **51**(4), pp. 733–742 <https://doi.org/10.1007/s12524-023-01665-5>
- 20) **Hamdad, S.**, Lazri M., Mohia Y., **Labadi K.**, Ameur S. (2023) Spatiotemporal Comparative Analysis of Dry/Wet Phenomenon of the Rainy Period Using Artificial Neural Networks and Markov Chains, *Journal of the Indian Society of Remote Sensing*, <https://doi.org/10.1007/s12524-023-01720-1>
- 21) Belghit, A., Lazri M., Ouallouche F., **Labadi K.**, Ameur S. (2023) Optimization of One versus All-SVM using AdaBoost algorithm for rainfall classification and estimation from multispectral MSG data, *Advances in Space Research*, 2023, **71**(1), pp. 946–963 <https://doi.org/10.1016/j.asr.2022.08.075>
- 22) Simova I., Velichkova R., **Uzunova M.**, Angelova R., Stankov P., Atanasov K. (2023) On the possibility of the utilization of hydrogen sulfide from the Black Sea, *Polityka Energetyczna – Energy Policy Journal*; **26**(2):183–194 <https://doi.org/10.33223/epj/163372>
- 23) Khoury, A.; Kaddaha, M.A.; Saade, M.; **Younes, R.**; Outbib, R.; Lafon, P. Challenges and Solutions for Engineering Applications on Smartphones. Software 2023, **2**, 350-376. <https://doi.org/10.3390/software2030017>
- 24) Julien Assued and **Yérali Gandica**, (2023) Detection and effect of social events on Wikipedia data-set for studying human preferences, Frontiers in Big Data. Sec. Data Science, Volume 6 - 2023 | <https://doi.org/10.3389/fdata.2023.1077318>
- 25) **L.Ba**, CSE.Kane, **I.Darcherif**, P.Pliya, TT.Ngo, I.Niang, F.Haidara, Experimental and numerical investigation of energy performance of building using biobased materials for sustainable construction. Energy Efficiency 16, 78 Springer (2023). <https://doi.org/10.1007/s12053-023-10156-y>

### **Chapitres (Lecture Notes) : 3**

- 1) **Melian M., El Barkany A., El Abbassi I., Absi R.**, (2023). Grid-Connected PV System Simulation Study, In: Motahhir, S., Bossoufi, B. (eds) Digital Technologies and Applications. ICDTA 2023. *Lecture Notes in Networks and Systems*, vol **669**. Springer, Cham. pp. 632–639  
[https://doi.org/10.1007/978-3-031-29860-8\\_64](https://doi.org/10.1007/978-3-031-29860-8_64)
- 2) Lazri M., **Labadi K.**, Ouallouche F., Ameur S. (2023) Optimization of Rainfall Intensities Classification Based on Artificial Intelligence Using Recurrent Neural Network, In: Kulkarni, A.J., Mirjalili, S., Udgata, S.K. (eds) Intelligent Systems and Applications. *Lecture Notes in Electrical Engineering*, **959**, pp. 39–48. Springer, Singapore. [https://doi.org/10.1007/978-981-19-6581-4\\_4](https://doi.org/10.1007/978-981-19-6581-4_4)
- 3) Ouallouche F., **Labadi K.**, Mohia Y., Lazri M., Ameur S. (2023) Artificial Intelligence for Satellite Image Processing: Application to Rainfall Estimation, In: Kulkarni, A.J., Mirjalili, S., Udgata, S.K. (eds) Intelligent Systems and Applications, *Lecture Notes in Electrical Engineering*, **959**, pp. 165–174. Springer, Singapore. [https://doi.org/10.1007/978-981-19-6581-4\\_14](https://doi.org/10.1007/978-981-19-6581-4_14)

## **I. CONFERENCES & AUTRES PUBLICATIONS**

### **15 communications pour 2023**

- 1) **Bouras A., Hamaci S.**, Ech-Chhibat M. E.-H., Samri H., **Absi R.** (2023) On the dynamic behavior of smart factories using Petri Nets in the context of Industry 4.0, *3rd International Conference on Innovative Research in Applied Science, Engineering and Technology (IRASET'2023)*, IEEE conference #57153, May 18-19, 2023, Mohammedia, Morocco.  
<https://doi.org/10.1109/IRASET57153.2023.10153001>
- 2) Lazri M., **Labadi K.**, Mohia Y., Absi R., Ouallouche F. Alouache D. (2023) Comparison between SVR and SVM in rainfall estimation from remote sensing data, *2nd International Conference on Intelligent Systems and Applications (ICISA 2023)*, Pune, India, May 3-4, 2023.
- 3) **Melian M., El Barkany A., El Abbassi I., Absi R.**, (2023) Grid-connected PV system simulation study, *ICDTA'23 The International Conference on Digital Technologies and Applications January 27-28, 2023, Fez, Morocco*.
- 4) Grantcharov A., **Uzunova M.**, Dimitrov K., Velichkova R., Contribution in Modelling and Control of Traffic Flow System Using Bond Graph, IEEE conference CODIT 2023, ISBN:978-1-4799-7517-4, DOI: 10.1109/EFEA.2014.70599913-6 June 2023, Rome, Italy.
- 5) Nega Tesfie\*, Rafik Absi, Ikram El Abbassi, Labouda Ba, Thermal properties of bio-composite materials for thermal insulation: a review, EVF'2023 – 10th International Conference on Energy and City of the Future at Nouakchott (Mauritanie), November 15-17, 2023.
- 6) Achraf NEDJAR\*, Rafik ABSI, Abla CHAKER, and Rachid BENNACER, Economic and environmental analysis of a PVT – Adsorption system for food-stuffs preservation in a Mediterranean climate, EVF'2023 – 10th International Conference on Energy and City of the Future at Nouakchott (Mauritanie), November 15-17, 2023.
- 7) Patrice Auclair, Rafik Absi, ... Valorisation financière des bienfaits apportés par les communautés énergétiques : application au solaire photovoltaïque en France, EVF'2023 – 10th International Conference on Energy and City of the Future at Nouakchott (Mauritanie), November 15-17, 2023.

- 8) L Ba, C S E Kane, I Darcherif, P Pliya, T T Ngo, I Niang, F Haidara, Numerical investigation of the energy performance of biobased material with cement as binder, EVF'2023 – 10th International Conference on Energy and City of the Future at Nouakchott (Mauritanie), November 15-17, 2023.
- 9) MELIANI Meryem\*, EL BARKANY Abdellah, EL ABBASSI Ikram, ABSI Rafik, Genetic algorithm optimization control system for microgrid energy storage, EVF'2023 – 10th International Conference on Energy and City of the Future at Nouakchott (Mauritanie), November 15-17, 2023.
- 10) Abdelali BOURAS\*, Samir HAMACI, Moulay El Houssaine ECH'CHHIBAT, Hassan SAMRI, Rafik ABSI, Modeling cyber physical system using Petri Nets in the context of Industry 4.0, EVF'2023 – 10th International Conference on Energy and City of the Future at Nouakchott (Mauritanie), November 15-17, 2023.
- 11) KOUBAYSSI Ali\*, ARNAOUT Mohammad, ABOU CHAHINE Mohammad, Absi Rafik, Design and Simulation of a New Optimized 650 KWp Micro-grid: Case Study of Aalmat Village in Lebanon, EVF'2023 – 10th International Conference on Energy and City of the Future at Nouakchott (Mauritanie), November 15-17, 2023.
- 12) Sameh Romdhani\*, Monia Ben Khader Bouzid, Rafik Absi, Modelling of an Energy Storage Battery and the Study of its Behaviour in a Solar application, , EVF'2023 – 10th International Conference on Energy and City of the Future at Nouakchott (Mauritanie), November 15-17, 2023.
- 13) Moncef BENKHERRAT, Salah Djelal, The integration of digital technology into mental health, EVF'2023 – 10th International Conference on Energy and City of the Future at Nouakchott (Mauritanie), November 15-17, 2023.
- 14) Anthony Khoury, Rafic Younes, Bilal Hoteit, Said Abboudi, Jihan Khoder, Rachid Outbibn, Educational Applications on Smartphone for Virtual Laboratories in Engineering. XIII International Conference on VIRTUAL CAMPUS Porto (Portugal), 25-26 September 2023  
<http://www.uajournals.com/jornadascampusvirtuales/en/>, Paper 5361
- 15) Maya Saade, Rafic Younes, Pascal Lafon, Mobile Learning for Engineering Education:Mobile Tools for Beam Analysis. XIII International Conference on VIRTUAL CAMPUS Porto (Portugal), 25-26 September 2023 <http://www.uajournals.com/jornadascampusvirtuales/en/>, Paper 7935