

BREAKING NEWS

EM3E-4SW graduate Marianne del Valle Suárez Hermidas has won Veolia's Trophées Performance 2019!

This year, Marianne del Valle Suárez Hermidas from Venezuela performed her semester 4 internship at Veolia, France, working on the thesis project "UF-NF coupled system for colored surface waters". The supervising partner university was Universidade Nova de Lisboa. We have just been reached by the news that thanks to the great quality of her project, she has won Veolia's prestigious Trophées Performance competition in the category "Cities".



EDITORIAL – Results of the questionnaire on the future of the master programme in Membrane Engineering.

As mentioned in the editorial of the previous issue, the consortium meeting held on January 30th, 2019 in Toulouse was dedicated to the future of our master programme beyond EU financing. The 6 European universities which are the main partners of the EM3E-4SW consortium suggested the creation, in each institution, of second-year master tracks taught in English, as a continuation of the current EM3E-4SW programme. All tracks would be dedicated to membrane engineering but differentiated by the targeted applications (environmental protection, water treatment, air cleaning, energy, biotechnologies, food and health, nanoscience and nanotechnology...).

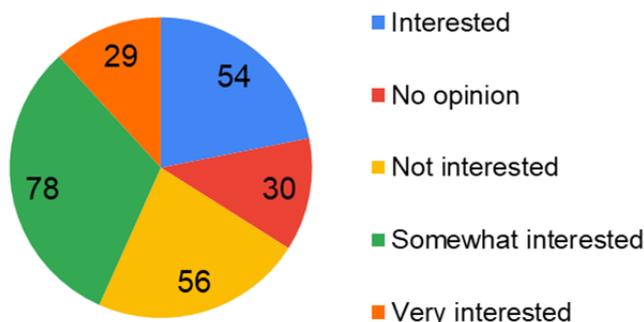
Thanks to the individual Erasmus+ mobility mechanisms (registration in the home university and mobility for one semester in the host university), the students involved in such tracks could graduate with a double degree from their home university and from the host university as well as with a European label possibly awarded by the partner universities and the European Membrane Society (as done before the creation of the EM3E and EM3E-4SW programmes).

This solution is feasible since Erasmus+ mobility grants normally cover the students' travel expenses and since the costs of living are rather comparable in the concerned university towns.

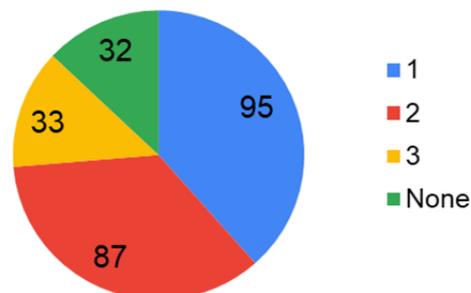
Before going any further in setting up a contractual framework for this new partnership, our consortium decided to survey the interest of the undergraduate and graduate students of our six universities in following a European second-year master track. An online questionnaire was opened from May to July 2019 and enabled collecting the replies of 247 students registered in chemistry or chemical engineering tracks, with rather equal contributions from bachelor and master students from different years of study.

The main results of this survey are summarized in the two pie charts below. The students have shown a strong interest (29 + 54 students) in enrolling in such a programme and are motivated by individual mobilities during the second year of their master.

Are you interested in a second-year master track in membrane engineering?



How many individual mobilities between universities would you consider reasonable in a second-year master track in membrane engineering?



These quite positive results will be analysed in depth during the board meeting concluding the 3rd annual e-conference of the EM3E-4SW programme, to be held on January 28th and 29th, 2020, in Montpellier, France. The selected overall topic for the meeting will be "Membranes in a sustainable world".



SPECIAL FOCUS – EM3E-4SW students at the European Membrane Society (EMS) Summer School 2019

Last June, the three of us were awarded the EMS Travel Grant to attend the 36th Summer School organized by the European Membrane Society, hosted by the University of Edinburgh. The School focused on “Membranes for a Sustainable Future”, and each day was devoted to the presentation and thorough discussion on how specific domains of membrane science can be applied for the sake of sustainability.

The School began with a treasure hunt event called “membranes hunting”, which took place in the streets of Edinburgh and acted as a perfect ice breaker to get to know the other participants. Then we had very insightful lectures delivered by key-note speakers concerning gas and liquid separations. On the third day, we had the opportunity to witness the culture and tradition of Scotland in the Highlands, where we visited Doune castle and a whisky distillery. The final two days were devoted to inorganic membranes and resources recovery discussions. The whole event was closed with a gala dinner with Ceilidh, a traditional Scottish dance in which students, lecturers and organizers got equally involved!

The Summer School as a whole was a unique opportunity for getting in touch with world-renowned scientists, early-stage researchers and other students. Thus, it provided a first-hand impression of the state-of-the-art membranes and the remaining challenges to be addressed in the coming years. A unique feature of the School was the SynFabFun Wall, where the attendees could place questions directed to the lecturers. Towards the end of the School, we had the chance of sharing these questions with the key-note speakers in Five-to-One groups, so that we could engage into fruitful scientific discussions and learn about the future direction of specific research areas.

Finally, we must acknowledge the nice sense of community achieved throughout the Summer School. The recreational activities not only guided us through the legends and beautiful landmarks of Edinburgh and Scotland, but also let us interact with fellow students from all over the world, promoting collaborations and networks which will be very helpful in our future scientific careers.



Nadin AL-JARIRY and Dharmjeet MADHAV (EM3E-4SW edition 2), Ignacio HGOBURU (EM3E-4SW edition 1)

Esra ERAY, Turkey – EM3E Edition 5 (2015-2017)

An industrial PhD student at Liqtech International A/S in collaboration with Aalborg University at Denmark under Marie Skłodowska-Curie action-AQUALity project.



To the current EM3E-4SW students: I hope you are enjoying EM3E-4SW and its various locations, friendships and adventures! I can confidently say that your time as an EM3E-4SW student will be some of the best and most interesting years of your life. So, live, learn and enjoy the ride!

When I look back at the two-year-journey in the EM3E, I count myself lucky to be part of this fantastic programme. I have lots of great experiences and good memories from the entire EM3E experience: the academic part, the people I met, the friends I made all over the world, the places I lived and visited. My EM3E experience has certainly paid off as I feel much more equipped to work professionally on membrane related topics in different working environments after graduating from the programme. Currently, I am doing an industrial PhD on a Marie Skłodowska-Curie AQUALity project between Liqtech International A/S and the Department of Chemistry and Bioscience of Aalborg University, Denmark.

AQUALity is a multidisciplinary and interdisciplinary as well as cross-sectoral European Training Network aiming to develop innovative purification technologies for the removal of contaminants of emerging concern (CECs). Within the AQUALity project, my research objective is to develop permeable and highly stable silicon carbide nanofiltration membranes for the removal of CECs and to determine the environmental impact, investment and running costs for the integration of the new systems in the real water treatment plant. To be an industrial PhD student is great way of learning to keep in mind the technical and the commercial aspect of the project. So, I am sticking to the true EM3E style!

I am grateful for the skills and the experiences that EM3E program gave me. It has changed my life in unimaginable ways. To the potential EM3E-4SW students: If you are wondering whether EM3E-4SW would be a great fit for you, do not think twice. Join us and become a new member of our EM3E/EM3E-4SW family.

Contact: ese@liqtech.com



Misgina Tilahun TSEHAYE, Ethiopia – EM3E Edition 5 (2015-2017)

BSc from Mekelle Institute of Technology (Mekelle University, Ethiopia) and currently a PhD candidate under Marie Skłodowska-Curie Actions – FlowCamp Project at the Université Grenoble Alpes (France).

It all began when I got involved in the design of a drinking water treatment plant for Mekelle City, Ethiopia for my Bachelor's thesis. I have thus been intrigued to strengthen my knowledge in applying membrane technologies for providing pure water and renewable energy. This was the main reason why I then decided to study membrane engineering for my master's degree. It won't be wrong if I say that I was checking the website of EM3E every day. Luckily, I was one of the 11 students within the 5th batch of EM3E. It was a dream coming true for me. Even if I had the chance to study other masters programmes somewhere else, it was so easy to decide for me.

I studied the first semester in Toulouse – strong chemical engineering courses and an introduction to membrane preparation and characterizations. We had to take more than 10 courses in just one semester. But everything was good except for the French language. The master study life became easier in beautiful Prague. Even more interesting in Lisbon. I did my summer internship and master thesis in KU Leuven. All the studying and traveling all the way from Montpellier to Lisbon and Leuven was all fun. Indeed, Erasmus Mundus is a life-changing experience, perfectly combining both studying and mobility. The master study has empowered me with a fundamental understanding of multidisciplinary research related to the applications of membrane engineering. I should acknowledge the coordinators, professors and participating universities for making this happen.

Currently, I am a second-year PhD student, under the FlowCamp project, working on the development of anion-exchange membranes for Zinc slurry-air and Organic redox flow batteries. FlowCamp is a training and research project funded by the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie Grant. We work to realize three low-cost and efficient next-generation energy storage technologies. The impact of EM3E both from an academic and personal growth perspective is immense. The practical experience in membrane preparation and characterization I developed during my EM3E studies is very helpful during my PhD.



Contact: misginabcen@gmail.com

Call for application for admission to the master edition 2020-2022: Our programme has reached the end of its European Commission funding through the Erasmus+ programme. For the next academic edition (2020-2022), we will not be able to offer any scholarships. If, in spite of this, you are interested in joining our master programme, please send us a message to the email address given below, specifying your full name, your nationality and your email address. You will then be recorded in our dedicated mailing list and receive information and updates about the application procedures and the dates of opening and closing of the online application systems.

Sponsoring opportunities: EM3E-4SW offers you the possibility to sponsor the programme. We welcome contact from your organisation and are happy to discuss any idea which could facilitate the recruitment of EM3E-4SW students. Moreover, the second year of the master is available as vocational and education training (VET).

Please contact us by e-mail: em3e-4sw-project@umontpellier.fr

More information on: <http://em3e-4sw.eu>