Dear our Alumni,

Molecular and Material Science (MMS) is a comparatively recent field of research encompassing physics, biology, chemistry and technology. It is aiming to find out novel properties and activities of molecules so far unexplored, and to create innovative materials with new and valuable functionalities which can be applied in medicine, pharmacy, electrical engineering, environmental treament, new energy,... In Viet Nam, although integration of courses in MMS into education programmes in chemistry and physics has been recently conducted in universities but still in low scale and the results obtained have still not been met with the demand of the society.

Within the framework of the Project "*Research-based curriculum development in molecular and materials sciences Vietnam*"(MOMA), Project Reference 597795-EPP-1-2018-1-BE-EPPKA2-CBHE-JP, Co-funded by the Erasmus+ Programme of the European Union, we aim to upgrade the quality of education programmes in MMS to match the need of the society. To that end, we will organize a workshop focusing on evaluating the effectiveness thereby orienting the upgrade of the current education programmes. We would like to get feedback from you related to our education programme in MMS listed below:

Bachelor in Engineering Physics (4 years, 140 credit points)
- Introduction to materials science (3 credits)
- Nano structured materials (3 credits)
- Luminescent materials (3 credits)
- Physics of thin films (3 credits)

Your feedback will be valuable foundation for upgrading the above education programmes.

A. Personal information

- *Age*:   □ < 30   □ 30–40   □ 40–50   □ > 50

- *Sex*:   □ Male   □ Female

- *Job Title*:   …………………………………………………………

- *Organization*:   …………………………………………………………

- *Mailing address*:   …………………………………………………………

- *Expertise*:   …………………………………………………………

- *Education/Occupational experience*:

1. Management	□ < 5	□ (5 – 10]	□ (10 – 15]	□ (15 – 20]	□ > 20
2. Research	□ < 5	□ (5 – 10]	□ (10 – 15]	□ (15 – 20]	□ > 20
3. Education	□ < 5	□ (5 – 10]	□ (10 – 15]	□ (15 – 20]	□ > 20
4. Consulting	□ < 5	□ (5 – 10]	□ (10 – 15]	□ (15 – 20]	□ > 20

B. Survey questions

MOMA VIETNAM

Co-funded by the
Erasmus+ Programme
of the European Union

1. How would you evaluate the necessity level described in the following questions.Scale of necessity level ranging from low to high: 1=(0–20%); 2=(21–40%); 3=(41–60%); 4=(61–80%); 5=(81–100%).

No	Question	Necessity level					Explaination (if any)
1.1	The importance of interdisciplinary knowledge(physics, chemistry, biology and technology) in the above training programmes.	1	2	3	4	5	
1.2	The importance of coordinations between university and enterprise for developing programmes in the field of molecular science and materials.	1	2	3	4	5	

2. How could you predict the society need for human resource in the fields of Molecular and Materials Sciencein coming years?

Answer		Explaination (if any)
Increase	□	………………………………………………………………………………… ………………………………………………………………………………… ……
Decrease	□	………………………………………………………………………………… ………………………………………………………………………………… ……
No change	□	………………………………………………………………………………… ………………………………………………………………………………… ……

3. Your job status after graduation:
   □ Having been working
   □ Worked before but not now
   □ Never get job

4. If you have been working, please answer Question 4.1,otherwiseplease answer Question 4.2.

Question 4.1 *(If you have been working)*

   a) How long did it take you to get a job after graduation?
□< 6 months□6 – 12 months□ > 12 months

   b) What kind of business are you currently working for?
      □State agencies   □Private enterprise
      □Foreign organizations   □Self-employment

   c) How is your job in accordance withyour specialization?
      □Total in accordance□Ratherin accordance   □ Notin accordance

   d) The job you obtained is thank to (maybe more than one option)
      □Specialization trained

MOMA VIETNAM

Co-funded by the
Erasmus+ Programme
of the European Union

□Foreign language proficiency
□Computer skills
□ Personal relationships
□ Own experiences
□Others (Please specify): …………………………………………………………….

Question 4.2. *(For whom not having a job)*Why did you not get a job?
□Continue to learnto improve knowledge
□Do not intendto find a job
□ Did apply for a job but failed
□ Have to take care of family
□Knowledge/specialization not appropriate   □Lack of working experience
□ Foreign language skills not appropriate   □Lack of job information
□Computer skills not appropriate   □Incompatible capacity
□ Others (Please specify): …………………………………………………………

5. Please circle the degree of your consent, satisfaction, or understanding about the training programme you have attended.The degree scale ranging from low to high: 1=(0−20%); 2=(21−40%); 3=(41−60%); 4=(61−80%); 5=(81−100%).

N0	Question	Degree					Explaination (if any)
5.1	Objectives and outcomes of the training programme satisfywith the social requirements	1	2	3	4	5	
5.2	Links between theory,practice and career after graduation in the training programme	1	2	3	4	5	
5.3	The distribution ratio between theoretical and practical courses in the training programme	1	2	3	4	5	
5.4	The degree of update of the training programme	1	2	3	4	5	
5.5	The integraty and interdisciplinaryof the training programme	1	2	3	4	5	
5.6	The training programme is typical research-based programme	1	2	3	4	5	
5.7	The university provides appropriate facilities, materials for research-based learning and teaching	1	2	3	4	5	
5.8	The university provides appropriate equipments for research-based practical teaching	1	2	3	4	5	
5.9	Lectures/exercises/experiments,... are designed in accordance with research-based learning and teaching.	1	2	3	4	5	

6. Could you please kindly circle the necessary of the existing courses as described below. The rating scale is ranked from low to high: 1=(0–20%); 2=(21–40%); 3=(41–60%); 4=(61–80%); 5=(81–100%).

No	Course	Satisfactory scale					Explaination (if any)
6.1	Introduction to materials science	1	2	3	4	5	
6.2	Nanostructured materials						
6.3	Luminescent materials						
6.4	Physics of Thin Films						

7. In your opinion, which course(s) listed below should be ADDED to the existing education programmes in Molecular and Materials Science?

No	Course	Description	Yes	No
7.1	Methods of material characterizations	This course presents methods for measuring mechanical, thermal, electrical, optical (absorption, photoluminescence, photoluminescence excitation), magnetic, dielectric, superconducting properties, and specific surface areas of nanomaterials.		
7.2	Methods of structural analysis	This course introduces the methods and techniques for determining the structural and morphological properties of nanostructured materials such as X-ray diffraction (XRD), Transmission electron microscope (TEM), scanning electron microscope (SEM), probe scanning microscope (SPM), atomic force microscope (AFM) methods.		
7.3	Multiscaling Modelling	The course introduces and discuss multi-scale models to reasonably handle material systems including reactions in material systems and interaction between biological molecular and nanomaterials, resulting in simulation real processes in a more efficient way. Based on the results of the simulation, new phenomena can be found, which help to minimize the time and cost of experiments.		
7.4	Solid State Chemistry	The course will discuss relationship between the structure and properties of solid crystal materials such as electronic, optical, magnetic and semiconductor properties. Especially, the main groups of inorganic materials such as metal, metal oxide and silicate and main crystal structures like perovskite, spinel,… will emphasis in this subject.		

8. In your opinion, which courses listed below need to be strongly research-based orientedly upgraded?

No	Course	Yes	No	Explanation
8.1	Introduction to materials science			

![MOMA VIETNAM logo]

Co-funded by the
Erasmus+ Programme
of the European Union

8.2	Nanostructured materials			
8.3	Luminescent materials			
8.4	Physics of Thin Films			

9. Which of education courses have you been following since graduation in order to get your job as well as to satisfy your job requirement?

   □Professional training □Englishtraining

   □Informatics training □To enroll in second bachelor programme

   □Graduate education   □To enroll in a communicate skillclass

   □Others: …………………………………………………………..

10. Your other opinions (if any):

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

………………………………………………………………………………………………

Thank you very much for your valuable cooperating and helping.