

FE NEWSLETTER

FACULTY OF ENGINEERING | Issue # 1 | Fall 2020



INSIDE THIS ISSUE

Publications and Research	4
Societies' News	5
Community Services	11
Engineering Alumni Group News	11
Senior Projects	11
Around the Faculty	12
Events	14
Upcoming Events	14



NOTE FROM THE DEAN

Despite the hardships, it is a joy to see the birth of our first Faculty of Engineering Newsletter. Our great gratitude goes to Ms. Nancy Turc and our administrative assistants who took this project on board. The Covid-19 pandemic has taken, and continues to take a heavy toll in the world, particularly in Lebanon. We hope with confinement, and the arrival of the vaccine, there will be some relief on the horizon. In parallel, with the imposed lockdown, this Newsletter serves to bridge the disjunction of students, faculty members and staff, and will continue as an effective form of communication thereafter.

Fall 2020 was also a difficult semester with the loss of our colleague and friend Dr. Francis Francis. We all remember his pleasant personality and poetic “zajaly” skills during our gatherings. His memory shall remain with us as well as our defunct.

On-line teaching is a great challenge and an occasion to acquire new skills. It is indeed revolutionizing our universities. We have witnessed great enthusiasm among faculty members who shared experiences, hints, and frustrations with exams.

In this first issue, several efforts have been deployed to capture bits of our work, accomplishments, activities and events. We are gratified of our colleagues’ publications and participation in interesting events. Students activities are also the pride of the faculty of engineering. It shows that in spite of all the difficulties, we still have vibrant dynamic young student professional societies sharing common interests and organizing on-line events.

I sincerely hope that this gathering newsletter persists as a semestrial tradition and expands to our engineering alumni around the globe. I invite all our colleagues to send more of their contributions. I know that we have hidden talents and unlimited potentials. Let us all share it with delight and gratification.

Sincerely Yours,

Jacques N. Harb
Dean, FE

PUBLICATIONS AND RESEARCH

Faculty members are actively involved in research. During 2020, their publications were submitted to high impact journals as well as international conferences. Some publications are listed below:

Peer-reviewed Journals

- > C. Ghnatios, E. Cueto, A. Falco, J.-L. Duval, F. Chinesta. "Spurious-free interpolations for nonintrusive PGD-based parametric solutions: Application to composites forming processes". International journal of material forming, 2020, doi: 10.1007/s12289-020-01561-0.35.
- > A. Barasinski, C. Ghnatios, E. Abenius, S. Bechtel, F. Chinesta. "Electromagnetic field propagation in a composite laminate and induced thermal field, application to microwave composites processing". International journal of material forming, 2020, doi: 10.1007/s12289-020-01562-z.36.
- > A. Ammar, C. Ghnatios, F. Delplace, A. Barasinski, J.-L. Duval, E. Cueto, F. Chinesta. "On the effective conductivity and the apparent viscosity of a thin rough polymer interface using PGD-based separated representations". International Journal for Numerical Methods in Engineering, June 2020, doi: 10.1002/nme.6448.37.
- > R. Ibanez, F. Casteran, C. Argerich, C. Ghnatios, N. Hascoet, A. Ammar, P. Cassagnau, F. Chinesta. "Data-Driven Modeling of Reactive Extrusion", MDPI Fluids, 2020, 5(2), 94.38.
- > C. Ghnatios, K. El Rai, N. Hascoet, P.-A. Pires, J.-L. Duval, J. Lombardi, J.-Y. Hascoet, F. Chinesta. "Reduced Order Modeling of Additive Manufacturing: From Calibration to Parametric Part Distortion", International journal of material forming, accepted January 2021.
- > Akiki, G., & Balachandar, S. "Shear-induced lift force on spheres in a viscous linear shear flow at finite volume fractions." Physics of Fluids, 32(11), 113306. (2020).

Peer-reviewed Conference Proceedings

- > Iskandar, R., Allaw, K., Dugdale, J., Beck, E., Adjizian-Gérard, J., Cornou, C., Harb, J., BadaroSaliba, N., Cartier, S., & Zaarour, R. (2020). Agent-based simulation of pedestrians' earthquake evacuation; application to Beirut, Lebanon. 17th World Conference on Earthquake Engineering, Sendai, Japan.
- > Feghali, Daniel J. van de Pas, Andrew J. Parrott, and Kirk M. Torr, ACS Macro Letters, 2020, 9 (8), 1155- 1160. Bio-based Epoxy Thermoset Polymers from Depolymerized Native Hardwood Lignin.
- > E Feghali, L Tauk, P Ortiz, K Vanbroekhoven, W Eevers, Polymer Degradation and Stability, 2020, 179, 109241. Catalytic chemical recycling of biodegradable polyesters.
- > Ibrahim Mjallal, Elias Feghali, Mohammad Hammoud, Charbel Habchi, Thierry Lemenand, Solar Energy, 2021, 214, 19-25. Exploring the colligative properties of Arachidic acid for potential use as PCM.
- > Salem, T., Kazma, M., and Metni, N. (2020) "Impact on Thermal Comfort from the Integration of Solar Panels under Stagnation in Buildings: A Numerical Investigation", Proceedings of ASHRAE 4th International Conference on Efficient Building Design, November 5-6, 2020, Beirut, Lebanon.
- > Salem, T., Kazma, M., Metni, N., and Hanna, H. (2020) "Numerical Investigation of the Impact of Integrating Solar Collectors under Stagnation", Proceedings of the 5th IEEE International Conference of renewable Energy in Developing Countries, June 29-30, 2020, Marrakech, Morocco.

Abstract

- > Impact of the 4th of August 2020 Beirut, Lebanon, port explosion on dynamical building properties
Guillier B., Cornou C., Harb J., Youssef Abdel Massih D., Guéguen P., Mercerat D., Salameh C., Aslan Y., Atwi Y., Bedran E., Chedraoui R., El Hajj M., Fahed M., Mannah J., Nassif H., Rouhana C., Saghbini C., Tannous, C. SSA, January 2021.

SOCIETIES' NEWS



The AICHE Elections:

In June 2020, four NDU students were elected to the AICHE executive student committee. Student Elie Nader was elected the Chair for the 2020-2021 Middle East Regional Subcommittee, both Karen Atallah and Samar Yammine were elected to the position of Middle East Regional Liaison for 2020-2021 whereas Mia Hajj was elected to the position of Social Media Coordinator – Instagram on the Publications Subcommittee of the AICHE Executive Student Committee (ESC) also for 2020-2021.

Another highlight of this news is that the AICHE NDU Student Chapter is the only chapter in Lebanon that is represented in the ESC and is the most represented chapter by number of members in the ESC in the Middle East.

AICHE-NDU Event:

In the framework of the AUF collaboration, the AICHE-NDU organized a webinar on November 25, 2020 at 4:00 p.m. entitled “Promotion Phenomena in Heterogeneous Catalysis for Greenhouse Gas Mitigation” that was given by Prof. Elena Baranova a Full Professor at the Department of Chemical and Biological Engineering at the University of Ottawa. In her presentation, Prof. Baranova emphasized mainly on the following points (1) Electrochemical Promotion of Catalysis, (2) Examples of EPOC with nano-scale catalysis, (3) Metal-support interaction and (4) Connecting Metal-support interaction and EPOC.

IEEE Events:

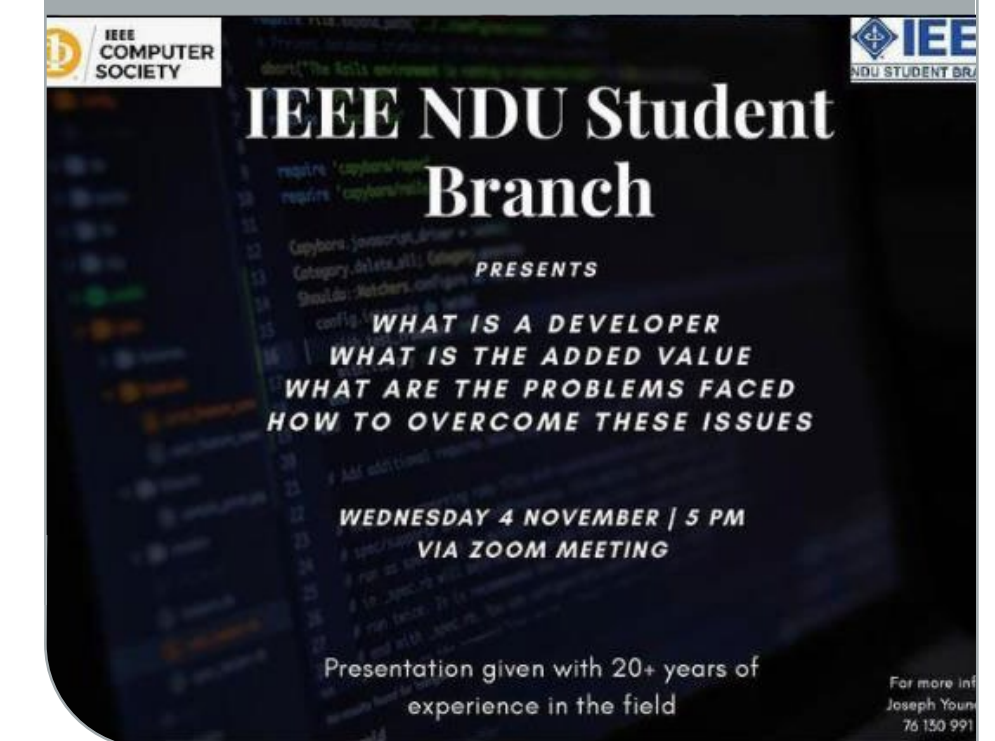
During Fall 2020, IEEE has organized several events as follow:



- | | |
|----------|---|
| 1. Title | Support Sessions for Python |
| Date | October 16-17, 2020 |
| Summary | Support Sessions to all NDU students facing difficulties in their Python courses. |



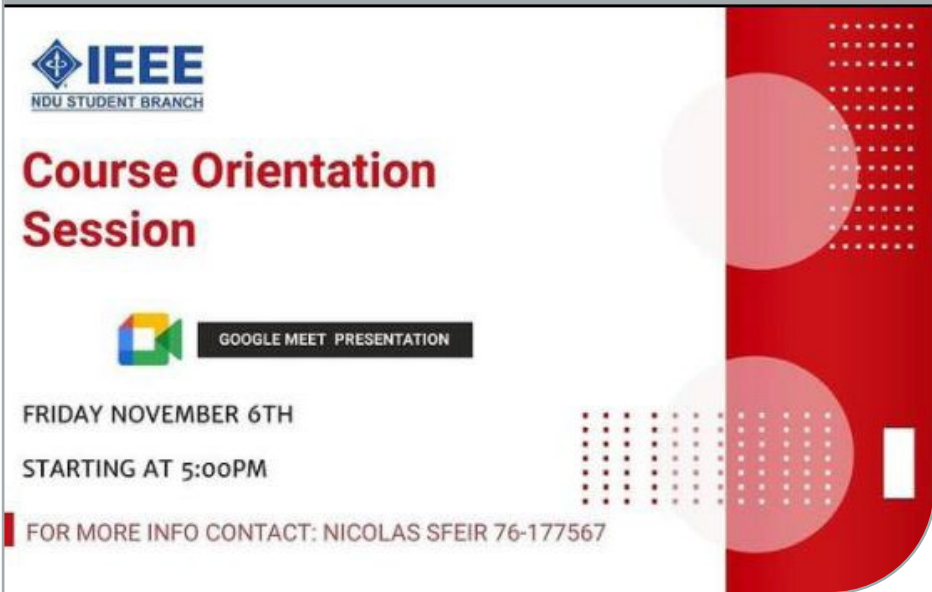
- | | |
|----------|---|
| 2. Title | Web Development |
| Date | November 4, 2020 |
| Summary | Webinar about some obstacles that may hinder the career of modern-day developers and some guidelines to remain up to date and on the right track. |
| Speaker | Eng. Rony Rizk |



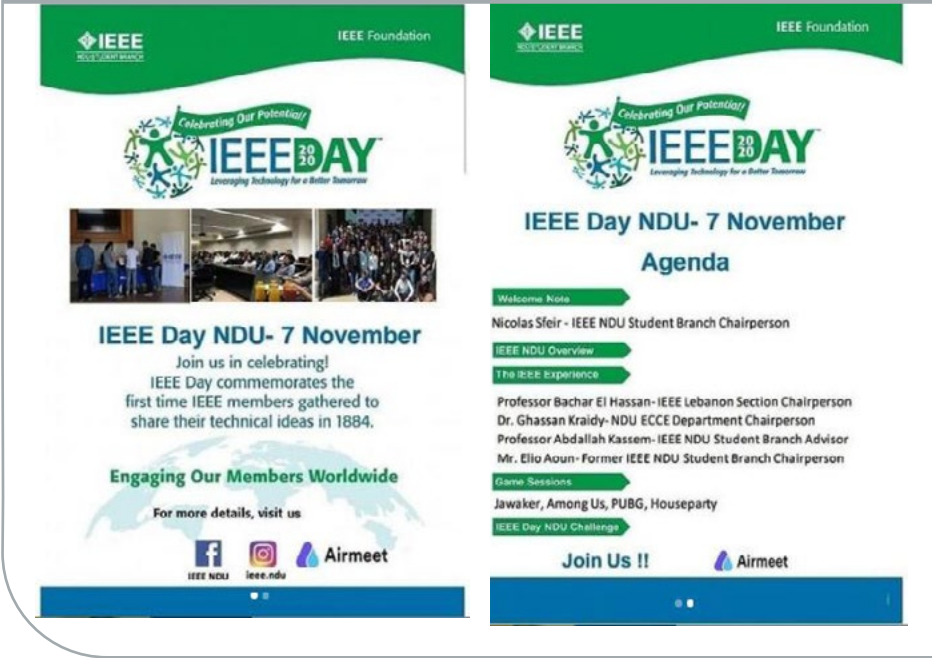
3. Title | **Automation Fundamentals**
Date | November 5, 2020
Summary | Introduction to Automation which allowed the audience to discover the aspects that make this field THE future of engineering and technology.
Speaker | Engineer **Melissa Demien**, founder of MD Team - Polytechnical Services



4. Title | **Course Orientation**
Date | November 6, 2020
Summary | Course Orientation Session which offered the students an overview of the curriculum along with tips to be kept in mind while building their schedules.



5. Title | **IEEE Day**
Date | November 7, 2020
Summary | A full-day celebration that started with a presentation about IEEE to end with fun social games and a trivia contest.
Speakers | **Professor Bachar El Hassan, Dr. Ghassan Kraidy, Professor Abdallah Kassem**



6. Title | **Discovering the business world**
Date | December 9, 2020
Summary | Webinar about post-graduation challenges and hidden local opportunities.
Speakers | **Jad Bitar** Founder/ President of CONFIDENCE real estate.



7. Title | **Physically apart but socially close**
Date | December 11, 2020
Summary | A bond-strengthening and stress-relieving event for new students prior to the examination period.

IEEE NDU BRANCH

Presents:

PHYSICALLY APART BUT SOCIALLY CLOSE

AN EVENT FOR NEW STUDENTS

Join us:

FOR AN ONLINE GATHERING TO MEET NEW STUDENTS AND BUILD PRECIOUS FRIENDSHIPS

DECEMBER 11 | @ 6 PM | VIA ZOOM

FOR MORE INFO:
NICOLAS SFEIR: 76/177 567

IEEE
NDU STUDENT BRANCH

8. Title | **Meet, Greet and Breathe**
Date | December 12, 2020
Summary | Online Yoga Session with **Sammar Rammah**

LET THE LIGHT IN YOU SHINE!

MEET, GREET, BREATHE

We want to meet you! Join us for a virtual get-together:
Icebreakers
&
Yoga session with
Samar Rammah, Yogini and Trainer

2 - 3:30 P.M. | DECEMBER 12, 2020
ONLINE EVENT

9. Title | **Circuits 2 Session**
Date | December 12, 2020
Summary | Support Session for NDU Students enrolled in Circuits 2 course

Circuits 2 Session

Support session for NDU students currently enrolled in Circuits 2 Course

Saturday, Dec 12 @ 10:00 AM

Via Skype

For more Info :
Elio Aoun
70/277748

IEEE
NDU STUDENT BRANCH

10. Title | **Internet Of Things**
Date | December 18, 2020
Summary | Webinar about IOT Concepts, introduced challenges, and prospective possibilities and applications.
Speaker | **Dr. Imad Zakhem**

INTERNET OF THINGS

WHAT YOU KNOW & DON'T KNOW ABOUT IOT.
IOT CONCEPTS, CHALLENGES AND FIELDS OF APPLICATION.

A WEBINAR ABOUT IOT WITH DR IMAD ZAKHEM

DECEMBER 18 | @6:10 PM | WEBEX

FOR MORE INFO:
NICOLAS SFEIR - 76 177 567

IEEE
NDU STUDENT BRANCH

The ASME events:

The American Society of Mechanical Engineers at NDU has always been an active community of engineers participating in interesting and fun events. Despite the struggles the country has been going through this past year, the ASME committee has organized virtual events:



1. Title

Date

Summary

| **Meet and Greet**

| October 28, 2020

| Annual event held to familiarize new members with ASME and to introduce them to the benefits of being part of the ASME community such as the annual scholarships granted to students who wish to apply and pursue their mechanical engineering studies.

3. Title

Speaker

Summary

| **Becoming an Engineer: What's the Next Step?**

| **Eng. Fares Nassif**

| Webinar held to explain how to get ready for the job market and included an interesting talk on the topic of aircraft engineering.

2. Title

Speaker

Summary

| **Autodesk Revit Introductory Workshop**

| **Eng. Elie Aoun**

| Webinar held to introduce students to a new software and opened up chances for innovative technologies available through the software along with the introduction to BIM.

4. Title

Speaker

Summary

| **Arduino Workshop**

| **Mr. Hassan Jouma**

| An introductory course on the basics of an Arduino and how it works. This course prepared students to create and manipulate more advanced circuits to be used in future university courses and later on in the work field.

5. Title

Date

Speaker

Summary

| **From Lebanon to NASA**

| November 6, 2020

| Lebanese Scientist **George Helou**

| Mr. Helou discussed the latest aerospace advancements and achievements, the role of Mechanical Engineers and scientists at NASA and more about the 7 earth-like planets he helped discover.



6. Title

Speaker

Summary

| **Engineering and Entrepreneurship**

| **Mr. Khalil El Rai**, cofounder of Spexal LLC

| As part of ASME E-Fests, which is organized by the regional and worldwide ASME sections, the online seminar discussed how engineers can become entrepreneurs in Lebanon and how to take chances in these challenging economic times.

The ASCE events:

Despite all the challenges, the American society of Civil Engineers students at NDU organized several events:



1. Title

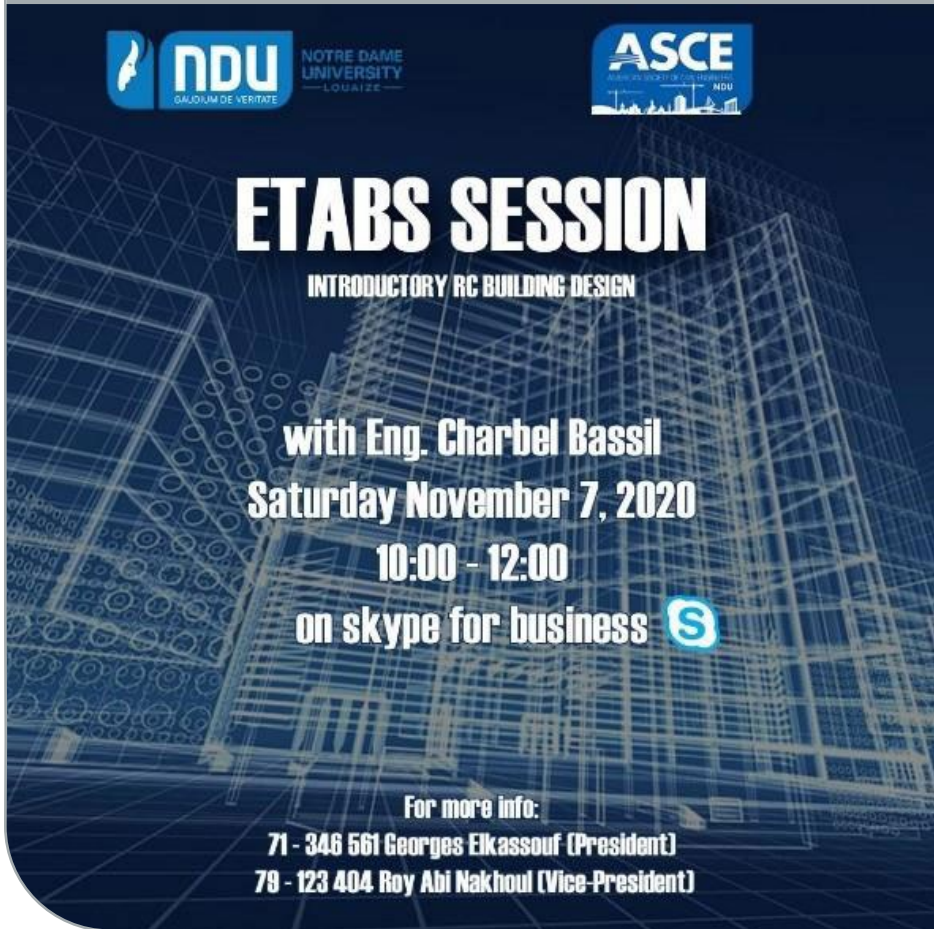
| **Software Session
ETABS and SAFE**

Date

| November 7, 2020

Summary

| In this session, Eng. **Charbel Bassil**, a previous member at ASCE NDU, introduced the basic necessary steps required for the design of a reinforced concrete building using ETABS and SAFE.



2. Title

| **Construction Field
Insight**

Date

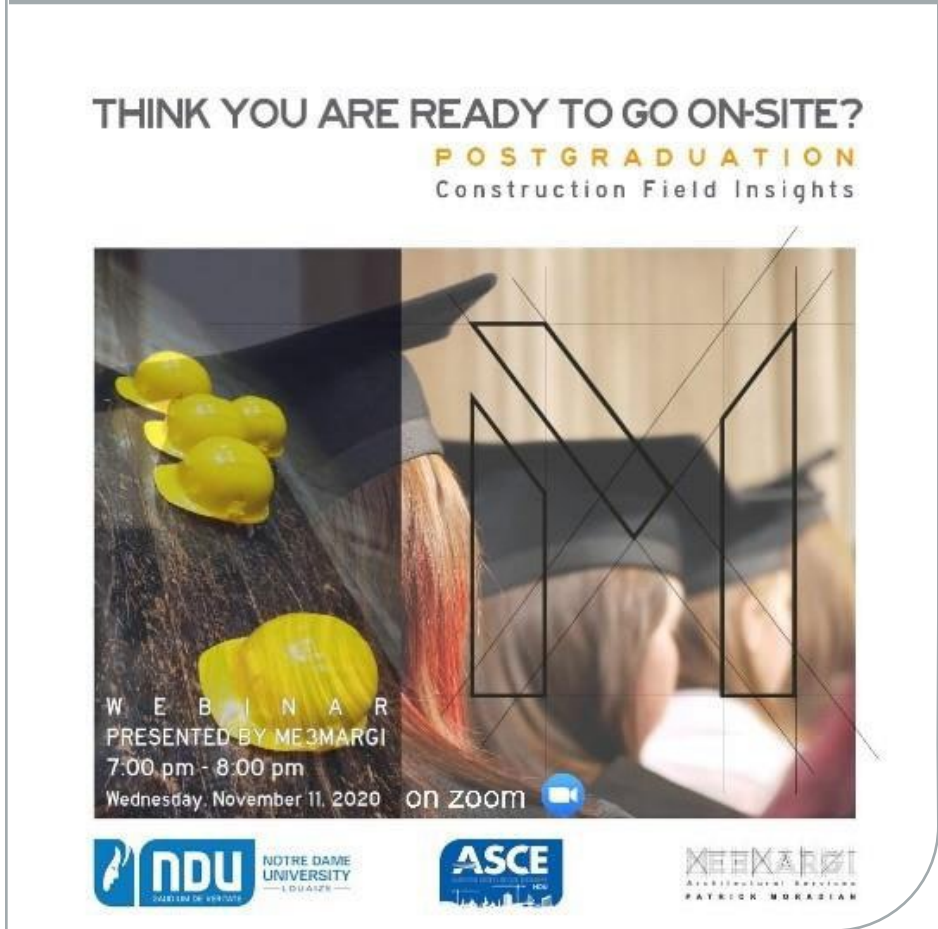
| November ,11 2020

Speaker

| Architect **Patrick Moradian**

Summary

| Architect Moradian gave an overall insight on what to expect post-graduation in the construction field, beyond the typical knowledge learned in the curriculum.



3. Title

| **Urban Engineering:
New Strategies
for a Resilient and
Sustainable Future**

Date

| November 18, 2020

Speaker

| **Dr. Jerome Hajjar**,
CDM Smith Professor
and Department Chair at
Northeastern University

Summary

| Dr. Hajjar presented his recent research in the field of urban engineering, focusing mainly on new strategies for a resilient and sustainable future. Students, as well as faculty professors were present and engaged in the Q/A session at the end of the webinar.



4. Title

| **Beirut Blast Nature
of Dynamic Loads,
Observations &
Damage Assessment**

Date

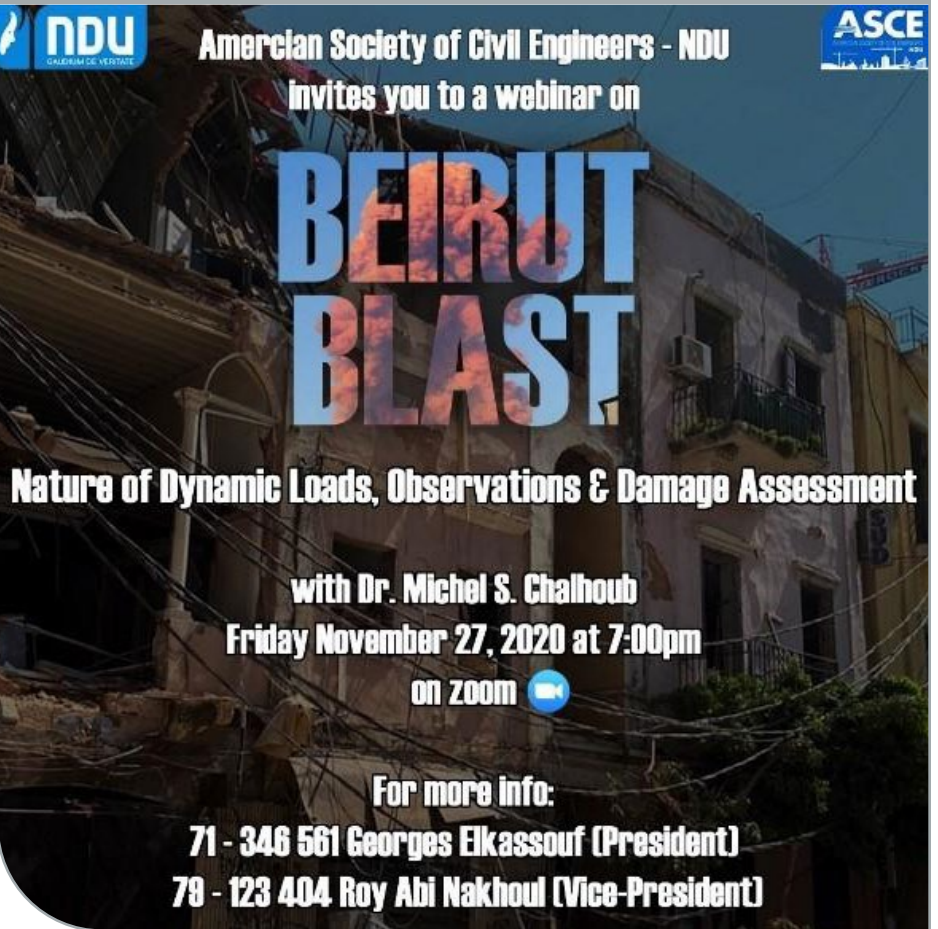
| November 27, 2020

Speaker

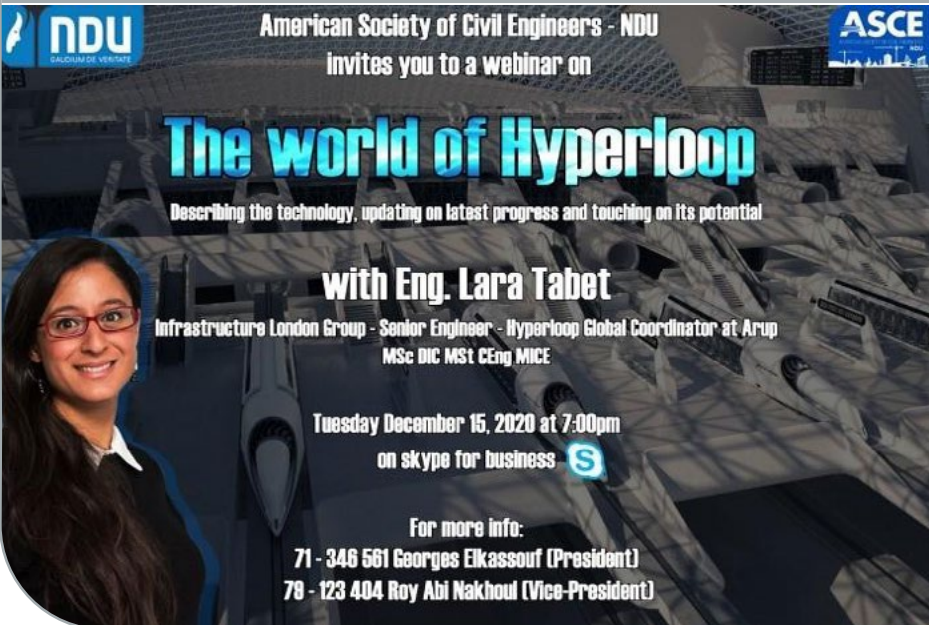
| Professor **Dr. Michel Chalhoub**, P.E., S.E., M. ASCE

Summary

| Professor Chalhoub discussed his work following the Beirut blast and explained the properties of a dynamic load.



5. Title | **The World of Hyperloop**
- Date | November 27, 2020
- Speaker | Engineer **Lara Tabet**, Infrastructure London Group, Senior Engineer, Hyperloop Global Coordinator at Arup
- Summary | Eng. Tabet introduced the new concept of transportation, the Hyperloop, explained its key concepts and answered all questions on this innovative technology.



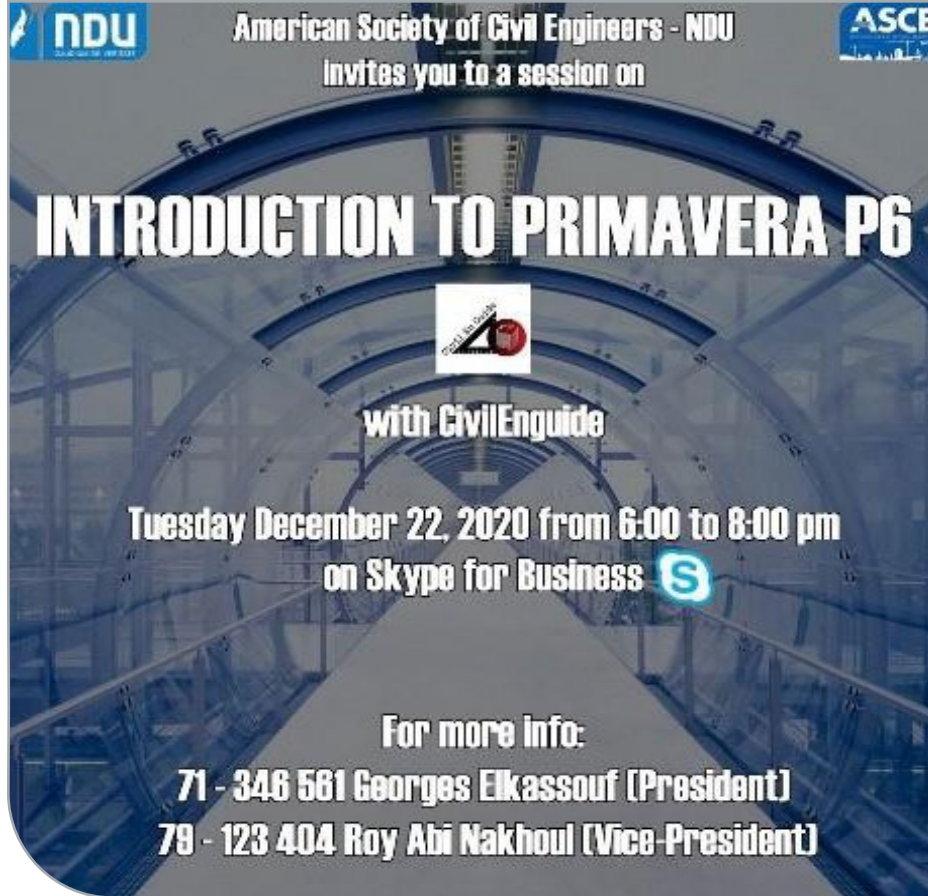
6. Title | **Sama Beirut, Surviving the Blast**
- Date | December 4, 2020
- Speaker | Architect **Nassib Ayoub** from Erga Group
- Summary | Architect Ayoub gave an overview about the blast proof design of the Sama Beirut tower which allowed it to withstand the Beirut blast.



7. Title | **Field Trip with CCL Derviche Haddad**
- Date | December 11, 2020
- Summary | The ASCE organized a field trip with CCL Derviche Haddad under the supervision of **Dr. Michel Chalhoub**, P.E., S.E., M. ASCE to acquire the required knowledge about prestressed concrete. Eng. Nayef Azar, operation and marketing manager at the company introduced the need, the competition, and the pursuit of development of this type of concrete used in construction.



8. Title | **Introduction to Primavera P6**
- Date | December 11, 2020
- Speaker | **Engineer Mohamad Haidar** from CivilEnGuide
- Summary | Eng. Haidar gave an overview on Primavera P6 used in the field of project management. An explanation of the various tools used was conducted followed by a real-life project managed on this software.



COMMUNITY SERVICES

FAAL Action 2021:

During January 2021, Dr. Chady Ghnatios volunteered in the FAAL Action 2021 that was organized by the US embassy in Beirut. The main objective of the FAAL Action was to achieve orientation of school students regarding their future career path, especially students in underserved regions of Lebanon.



ASCE-NDU > Community service with "Haddak Men B3id":

Given the economic crisis in Lebanon and the huge rise in the prices of necessity goods, ASCE students volunteered with "Haddak Men B3id", a Lebanese based NGO and helped them distribute food boxes to less fortunate families.

Date: December 27, 2020

ENGINEERING ALUMNI

Group News:

No current news.

SENIOR PROJECTS

MEN599 Engineering Design II:

Under the supervision of Dr. Chady Ghnatios, ME students Maria El Hindi, Ramy Ayoub and Hicham Nasr have worked on a senior project entitled "Creation of a solar tracking panel to optimize energy production during the day". The online presentation was held on Wednesday January 13, 2021.



CHE 598 Engineering Design I:

During Fall 2020, and as part of her CHE 598: Engineering Design I course requirement, student Samar Yammine prepared a proposal entitled "Development of a sensor or a portable spectrophotometer to quantify one type of pollutant present in Litani's river" under the supervision on Dr. Elias Feghali.

AROUND THE FACULTY



Dr. Jacques Harb, Dean of the Faculty of Engineering has successfully completed the online learning course entitled “Global Disaster Risk Reduction and Management Pathway” on May 25, 2020, at the Humanitarian Leadership Academy.

Also, on November 16, 2020, Dr. Harb has renewed his involvement with Ministero dell’Istruzione, dell’Università e della Ricerca as part of the Register of Scientific Experts, REPRISE set up at the MIUR for the following sections Fundamental research, Applied research and Scientific popularization.

Furthermore, Dr. Harb has been active as a member in the scientific committee at the Ibrahim AbdeI Al Foundation for Sustainable Development, IAAF in developing a data base for GeoHydrological system of the Akkar area.

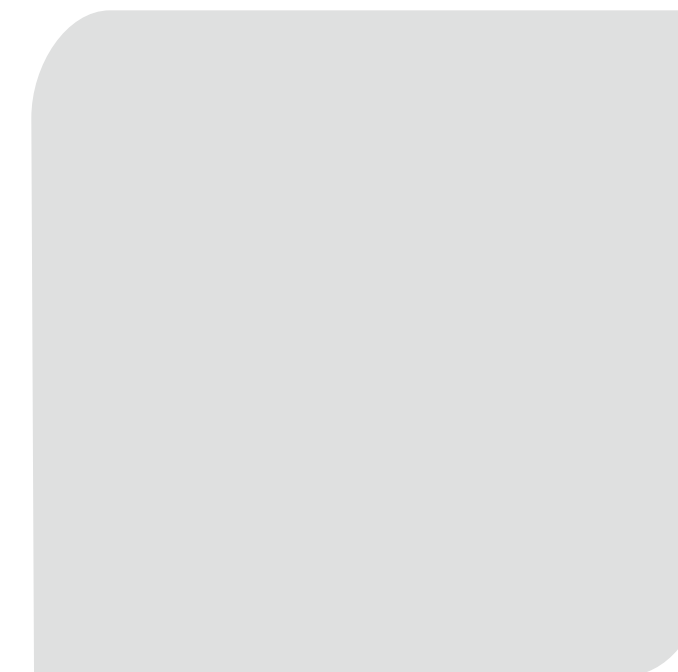


Associate Professor at the DME **Dr. Najib Metni** has received an Erasmus+ grant for the SWaTH project (Sustainable Water Treatment for Hospitals). This project has a total budget of EUR 999,765 for three years. The project will quantify current methods of wastewater treatment in Lebanese hospitals, classify their level of compliance with International standards, statistically and scientifically assess social and environmental damage through Life Cycle Assessment (LCA) studies, and enhance the wastewater laboratories and faculty skills through relevant equipment acquisition. The sustainable water treatment for hospitals is a very hot topic especially during the COVID-19 pandemic.

The DME and more specifically the Chemical Engineering program will benefit from this grant by a large number of workshops and



trainings for faculty and students about the newest technologies used for sustainable water treatment. The trainings will be held and conducted by different European partners (KTH- Sweden, University of Oulu-Finland, University of Lleida-Spain, University of Granada-Spain, Université de la Rochelle-France). It will be also an opportunity to acquire equipment related to testing, analysis and treatment of contaminated water. These equipment will be additional tools to be used by undergraduate and graduate NDU students.



Dr. Talal Salem, Department of Civil and Environmental Engineering, DCEE Chairperson has been selected to join the IP Valorization Grants Program and received a \$25,000 innovation voucher from Berytech who has partnered with The Euro-Lebanese Centre for Industrial Modernisation (ELCIM) of the Industrial Research Institute (IRI) to mobilize Academia and Research institutions to work on commercializing Lebanese intellectual property for the benefit of different sectors and to advance the Knowledge Economy. Dr. Salem’s project addresses the development of a thermal energy storage systems based on sensible and latent energy storage.



Associate Professors at the DCEE **Dr. Talal Salem & Dr. Dima Jawad** got an Erasmus+ grant for the UPGRADE project that has a total budget of EUR 875,150. UPGRADE is an ERASMUS+ EU funded project that aims at directing the development of higher education and research in transportation and involving innovative transportation solutions to serve the needs of unprivileged minorities of society. UPGRADE will employ multidisciplinary higher education and research to help transportation businesses address the pressing transportation challenges in participating Partner Countries using innovative solutions such as ride-sharing, ride-hailing, and advanced urban transit.

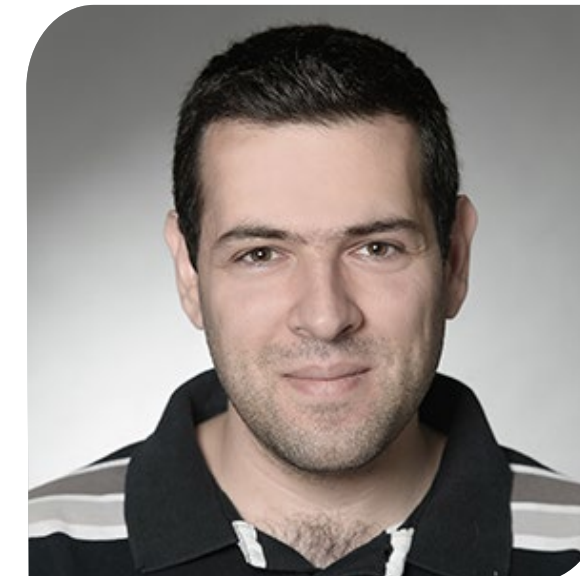


From NDU share which is EUR115,432, The Department of Civil and Environmental Engineering will be able to equip the Labs with high tech transportation equipment and a powerful computational center. These equipment and tools will be used by graduate and undergraduate students, and for research activities by faculty members. Also new courses on urban transportation will be developed at NDU within the project. Also, the project includes several extensive trainings to civil engineering students and faculty members at the partner institutions in the Programme Countries. Faculty members will also collaborate with researchers from Programme and Partner Countries and publish scientific articles on the project main findings.



Dr. Maurice Khabbaz, Associate Professor at the Electrical and Computer and Communication Engineering Department, has been nominated as the Editor-In-Chief for the Blockchain-Enabled Industrial Internet of Things Special Issue of the IEEE Internet of Things Magazine.

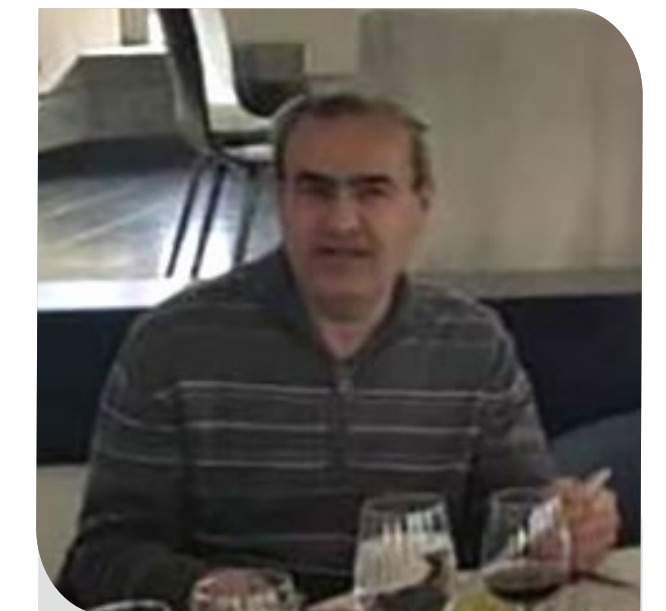
Also, Dr. Khabbaz has been awarded the Associate Editor (AE) Service Excellence Certificate from the IEEE Transactions on Network and Service Management with an AE service term renewal for an exceptional third time in a row. Please join us in congratulating Dr. Khabbaz for the certificate he has been awarded along with his nomination as Editor-In- Chief and wishing him a successful term in leading this magazine.



Dr. Chady Ghnatios, Associate Professor at the Mechanical Engineering Department, has been selected at the Fulbright Visiting Scholar Program that is funded by the US department of State as a Fulbright visiting Assistant Professor to Stanford University starting January 2021. Dr. Ghnatios will be working on a hybrid modeling of the automated tape placement; Hybrid modeling combines classical models, enhanced by artificial intelligence algorithm to correct the ignorance always involved in the models.



Dr. Georges Akiki, Assistant Professor at the Mechanical Engineering Department, has participated in the Division of Fluid Dynamics Conference of the American Physical Society.



The Faculty of Engineering at NDU mourns the passing of a beloved soul and exceptional professor, **Dr. Francis Francis**, Associate Professor at the Mechanical Engineering Department. Dr. Francis died on Monday, November 23, 2020. May his soul Rest in Peace.

EVENTS

Due to the spreading of the Covid-19 pandemic, no events were organized by the Faculty of Engineering.

UPCOMING EVENTS

The department of Mechanical Engineering and the American Institute of Chemical Engineers (AIChE) NDU student chapter – Faculty of Engineering at Notre Dame University-Louaize are organizing a webinar entitled “Li-ion batteries changed our daily life, why?, how do they work?, and what next?” by Dr. Sébastien Sallard on Wednesday February 24, 2021 at 5:00 p.m. (UTC+2-Beirut Time).

Microsoft Teams link: https://teams.microsoft.com/_#/pre-join-calling/19:meeting_NWZmMTRIZDUtODM0NS00YmQwLWEzZTUtMjRjZGU4ZmMwODgx@thread.v2

Abstract: Can you imagine a life where as soon as you are leaving your home or your office you are not connected? No possibility to phone? No possibility to be called? No possibility to find any needed information in several seconds? Since ca. 15 years, smartphones make it possible thanks to their high performance electronic hardware, software and dedicated phone/wi-fi networks. Yet, all electronic devices need electrical energy to be functional. High energy, light weight and cheap batteries are needed. Today such batteries are called Li-ion batteries. They are also massively used in the electrical and hybrid cars, the storage of the grid energy... Nowadays, the production of the Li-ion batterie became a strategic matter for many countries.

The presentation will start with an introduction on the Li-ion batteries market and its recent evolution to elucidate the actual situation and why such basic things as “batteries” have turned to be of strategic interest for the nations.

Fundamentals of batteries will be shortly presented to explain why the Li-ion batteries possess today the highest energy storage capacity compared with any other type of batteries (lead & nickel

metal-hydride). The different chemical/electrochemical phenomena occurring in batteries will be introduced taking into consideration different materials present inside the battery, used to store reversibly the electrochemical energy. Furthermore, the importance of the battery engineering will be discussed.

Despite all their advantages, Li-ion batteries possess also draw-backs that limit their performances (energy density, charge rate, lifespan). The different challenges of the existing technologies will also be presented e.g. solid-state batteries, silicon-based batteries, lithium- sulfur batteries or lithium-air batteries, to present the prospective developments.

Biography

Dr. Sébastien Sallard is a Senior Scientist at the Flemish Institute for Technological Research (Belgium). He is in charge of the development of new materials for batteries since 2017. Dr. Sallard received his PhD from the École Normale Supérieure de Cachan (France) in 2004 for his work in electrochemistry and sol-gel materials. He was a postdoctoral fellow at the Max Planck Institute of Colloids and Interfaces (Germany) and the Liebig-Universität Giessen (Germany) from 2005-2010 working on the development of electrochemical nano-materials. Furthermore, Dr. Sallard contributed to the development of new materials for Li-ion batteries at the Paul Scherrer Institute (Switzerland) from 2011-2016, as a Senior Scientist.

His actual research focuses on lithium-sulfur batteries and the engineering of new electrodes. Dr. Sébastien has authored over 30 peer-reviewed publications and 2 international patents.

AIChE **vito**

The Department of Mechanical Engineering and the American Institute of Chemical Engineers (AIChE) NDU student chapter – Faculty of Engineering at Notre Dame University – Louaize have the pleasure to invite you to a webinar entitled

Wednesday | February 24 2021 | 5:00 pm (UTC +2 – Beirut Time)

Li – Ion batteries have changed our lives. Why? How do they work?, And what next?

Guest Speaker
Dr. Sébastien Sallard
(Senior Scientist at the Flemish Institute for Technological Research - Belgium)

Topics to be covered: Introduction on the Li-ion batteries market, fundamentals of batteries, the different chemical/electrochemical phenomena occurring in batteries, and a discussion of the importance of the battery engineering.

About Dr. Sébastien Sallard: Dr. Sébastien Sallard is a Senior Scientist at the Flemish Institute for Technological Research in Belgium. He received his PhD from the École Normale Supérieure de Cachan (France) in 2004. His actual research focuses on lithium-sulfur batteries and the engineering of new electrodes. Dr. Sallard is recognized for his contribution in the development of new materials for Li-ion batteries at the Paul Scherrer Institute (Switzerland). Dr. Sallard has authored over 30 peer-reviewed publications and 2 international patents.

Microsoft Teams link
https://teams.microsoft.com/_#/pre-join-calling/19:meeting_NWZmMTRIZDUtODM0NS00YmQwLWEzZTUtMjRjZGU4ZmMwODgx@thread.v2

