FACULTY OF ENGINEERING AND NATURAL SCIENCES

NEWSLETTER

Issue 2

MESSAGE FROM THE DEAN

Greetings,

As promised, we are back with the new issue of our newsletter listing many activities and events that have happened since the previous issue.

First of all, the Fall 2020-2021 term has completed with success despite the fact that we are going through extremely hard times due to the COVID-19 pandemic.

The faculty members' dedication to high quality teaching, synchronous and interactive lecture hours spent with students, and exemplary use of technology in our classes show that excellence in teaching is something we are used to achieve, pandemic or not. The Spring term will be no different, if not better.

We gladly see that FENS members are extremely active in writing project proposals and securing grants to further their research. In this issue, we list the names of our faculty members who are granted various prestigious TÜBİTAK and EU grants. We congratulate them and wish further success in their future project proposals.

This gives us a great deal of hope for Horizon Europe calls, for which we are organizing events for you. Please follow our announcements regarding those events, at which we expect your increased participation.

We heard all your valuable feedback and suggestions via "Research Survey" we conducted in the Fall, loud and clear, as well! Based on the survey results, we are currently carrying out one-to-one interviews to listen you further and we are busy with devising an action plan for improvement areas in research.

Our faculty members are influential in other realms of the academic life as well; receiving awards, becoming editors to prestigious journals, giving keynote speeches, organizing scientific events, writing cover page articles, etc. We also give a list of them in this issue and we extend our sincere congratulations to all those faculty members.

We are working hard and organizing many events to improve the faculty climate, to foster scientific research and improve outreach venues: our technology webinar series "Teknolojinin Gücüyle Geleceğe", "Sharing Experiences", "FENS Lounge Meetings", to name a few. Please check this issue for them. We only ask your participation as participating is contributing.

Also, we would like to bring to your attention that we are applying for MÜDEK accreditation of the five FENS undergraduate programs: CS, EE, IE and ME undergraduate programs for extension of another five years and MAT for the first time. We are now in the middle of a colossal effort to prepare the reports that are due beginning of July this summer. We would like to express our heartful gratitude to those contributing to the effort.

Note that the events, activities and news in this issue pertain to the time interval between November 1 and February 28. If we miss any project, activity, achievements of yours in this issue, please let us know so that we include them in the next issue.

We are here to build and sustain a vibrant, dynamic, collaborative community at FENS with wholehearted commitment to civility, transparency, diversity and inclusion. Your feedback on our efforts are always welcomed!

Once again, thank you all for your commitment and resilience during this difficult time.

I wish everyone a happy and healthy spring.



EU PROJECTS

We all know the importance of the EU funding and how competitive it is. Congratulations to our new EU projects and those who accomplished to go over the threshold. We will keep up the good work and will sure see more projects coming!

ERA·NET: Abdolali Khalili Sadaghiani- Ali Koşar-Ghazaleh Gharib

H2020 /Marie Sklodowska Curie Action: Nur Mustafaoğlu- Ali Koşar

European Joint Programme on Rare Diseases: Cavit Ağca

Over the Threshold

Ali Koşar, Bahattin Koç, Eralp Demir, Mehmet Yıldız-Fevzi Çakmak Cebeci, Murat Kaya Yapıcı-Yaşar Gürbüz, Mustafa Ünel, Nihat Gökhan Göğüş, Selmiye Alkan Gürsel- Serhat Yeşilyurt- Begüm Yarar- Alp Yürüm, Turgay Bayraktar- Michel Lavrauw, Yusuf Ziya Menceloğlu

TÜBİTAK PROJECTS

I am extremely happy to report that we continue to dominate the TÜBİTAK funding landscape with many new and upcoming projects.

TÜBİTAK 2247A Ulusal Lider Araştırmacı: Burak Kocuk, Murat Kaya Yapıcı, İsmail Çakmak

TÜBİTAK 1001: Ali Koşar, Berrin Yanıkoğlu, Bekir Bediz, Can Çalışkan- Yaşar Gürbüz, Emre Erdem, Erhan Budak-Kemal Kılıç, Gözde İnce, Kürşat Şendur, Lütfi Taner Tunç, Mohammad Sadek, Nurdagul Anbar Meidl, Öznur Taştan, Ünal Ertan, Yaşar Gürbüz- Can Çalışkan

TÜBİTAK KUTUP 1001: Emre Erdem

TÜBİTAK 3501: Amine Gizem Tiniç, Sinan Yıldırım, Yasemin Şengül Tezel

TÜBİTAK 1002: Burak Kocuk, Emre Erdem, Lütfi Taner Tunç, Onur Varol

TÜBİTAK 1005: Bekir Bediz, Özge Akbulut, Özgür Gürbüz

TÜBİTAK 2549 NCBR: Ömer Ceylan- Yaşar Gürbüz

TÜBİTAK 2523 NRF: Erhan Budak- Emre Özlü, Cem Güneri

TÜBİTAK 2209B: Ali Koşar- Abdolali Khalili Sadaghiani

TÜBİTAK 2508: Cleva Ow Yang- Mehmet Ali Gülgün-Meltem Sezen

TÜBİTAK 2518: Gökhan Gögüs

TÜBİTAK 1505: Adnan Kefal- Mehmet Yıldız, Emre Özlü-Kemal Kılıc

AWARDS & ACCOMPLISHMENTS

Nothing better than hearing the news of our members getting awarded for their hard work!

Albert Levi: T.C. Cumhurbaşkanlığı Bilim, Teknoloji ve Yenilik Politikaları Kurulu (BTYPK), Siber Güvenlik Teknoloji Yol Haritası Danışma Grubu Üyeliği

Ali Koşar: TÜBA Associate Membership

Beste Basciftci: Best Paper Award in the 2020 IISE Transactions Focus Issue on Operations Engineering and Analytics

Esra Erdem: Management Committee Member of COST Action - Distributed Knowledge Graphs

Kağan Kurşungöz: ODTÜ Prof. Dr. Mustafa N. Parlar Eğitim ve Araştırma Vakfı Ödülleri - Araştırma Teşvik Ödülü

THE EDITORS

Congratulations to our new editors and good luck in their new challenging yet rewarding tasks!

Ali Koşar: Applied Thermal Engineering - Subject Editor

Christopher Mayack: <u>Uludag Bee Journal - Language</u> Editor

Emrah Eroğlu: FRBM - Guest Editor

Emre Özlü: <u>Digital Manufacturing Technology - Editorial</u> <u>Board Member</u>

Esra Erdem: Artificial Intelligence Journal - Associate Editor; Theory and Practice of Logic Programming - Area Editor

Michel Lavrauw: <u>Journal of Combinatorial Theory,</u> Series A - Editor-in-Chief Meltem Elitas: Topic Board Member of Sensors Journal

Nur Mustafaoğlu: Shortlisted for scientific achievements category in Nature Research Awards for

Inspiring and Innovating Science

Selim Balcısoy: Academic Advisory Board Member of

TRAI

Selmiye Alkan Gürsel: The representative of SU for BEPA (SU becomes the member of the Batteries European Partnership Association)

Lastly, special congratulations to our graduate student Moein Talebian Gevari for his article 'Deagglomeration of nanoparticle clusters in a cavitationon-a chip device' with Kürşat Şendur and Morteza Ghorbani is now in the Most Read Article List in AIP Advances Murat Kaya Yapıcı: Sensors Journal - Topic Editor;

Experimental Results - Reviewing Editor

Nur Mustafaoğlu: <u>Micromachines- Topic Editor;</u> <u>Micromachines/ 3D in Vitro Tissue and Organ Models</u>

(special Issue) - Guest Editor

KEYNOTES

We could not include all conferences and seminars our members participated recently due to space constraints here. Here is the list of the keynote speeches given by our faculty recently.

Albert Levi: <u>Istanbul Technical University, SINCONF</u> 2020, 13th International Conference on Security of Information and Networks

Ali Koşar: Biruni Univerity, 3. BİGEN Congress

Christopher Mayack: <u>Istanbul University, 17th</u> <u>International Molecular Biology and Genetics Winter</u> <u>School</u>

Emrah Eroglu: King's College London

Michel Lavrauw: Universita degli Studi della Campania, Galois geometries and their applications eseminars; University of Zurich, Codierungstheory und Kryptographie Seminar series

Zafer Gedik: <u>Istanbul University, Department Seminar;</u> Quantum Flagship, European Quantum Week

SCIENTIFIC EVENTS ORGANIZED BY FACULTY

Even during this pandemic, our members continue organizing scientific events and keeping the circulation of the academic knowledge intact. Thank you for this Impressive work!

Adnan Kefal: Integrated Manufacturing Webinar Series: Advanced Composite Manufacturing Webinar (SU-IMC)

Bülent Çatay: 2020 IEEE Symposium on Computational Intelligence in Production and Logistics Systems

inanç Adagideli: Mete Atatüre Lecture Series (SU)

Meltem Elitaş: Emerging Topics in Artificial Intelligence 2021 Conference (SPIE); Saturday Bioengineering Talks

Murat Kaya Yapıcı: Wearables for Health Monitoring Conference (EMBEC)

Nur Mustafaoglu: Neurobiology Journal Club

Öznur Taştan: Asu Özdağlar Mini Lecture Series

Webinar (SU)

HOT TOPICS IN SCIENCE

Can Quantum Al Do Science? Durmuş Ali Demir

The knowledge attained about the fundamental laws of nature seems to have reached a critical point in that further progress requires exploration of tantalizingly short and long distances. The requisite experiments are difficult to build and conduct with the existing technology. A solution to this difficulty, according to MIT's Tegmark

LATEST JOURNAL COVER

This beautiful cover deserves a face-to-face celebration which will hopefully happen soon, when the pandemic situation calms down. Many congratulations to all who made this happen!

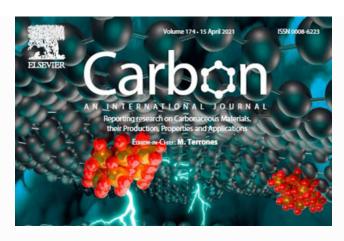
[1], is AI, which can rediscover the existing laws from the data and predict the new ones. This solution, despite its attractiveness, may have to wait for the development of quantum AI. And this advanced AI, which might be expected to solve even the enigmatic quantum gravity, is limited in design, according to Texas' Weinberg [1], by human intelligence. And its findings, argues IAS' Arkani-Hamed [1], may not have the depth and simplicity expected of a physical law.

[1] Dennis Overbye, Can Computers Devise a Theory of Everything?, New York Times (November 23, 2020).

Pandemic hit academic mothers especially hard, new data confirm Selmiye Alkan Gürsel

In the months after the pandemic started, most researchers worked fewer hours per day than usual. But parents—especially mothers—lost the most work time, according to a new study. Mothers also spent more time on child care and housework than fathers.

https://www.sciencemag.org/careers/2021/02/pandemichit-academic-mothers-especially-hard-new-data-confirm



The study titled "High stability graphene oxide aerogel supported ultrafine Fe3O4 particles with superior performance as a Li-ion battery anode" by Alp Yürüm, Selmiye Alkan Gürsel, Buse Bulut Köpüklü and Adnan Taşdemir will be featured on the April 2021 cover of the Carbon journal.

ATTENTION: MESSAGE FROM VICE DEAN OF EDUCATION, TONGUÇ ÜNLÜYURT!

CS, EE, IE and ME undergraduate programs of FENS are applying for the extension of accreditation for another 5 years to MÜDEK (Association for Evaluation and Accreditation of Engineering Programs) this year. In addition, MAT program is applying for MÜDEK accreditation for the first time. The preparations have already started and the reports are due in July 2021. MÜDEK is a member of European Network for Accreditation of Engineering Education and is a full signatory (member) of Washington Accord. In addition, MÜDEK is authorized to issue EURACE Bachelor Label.



UPCOMING EVENTS

You asked for more events and we went all the way! There are many seminars, workshops, meetings coming up this Spring. Be prepared for more surprises!



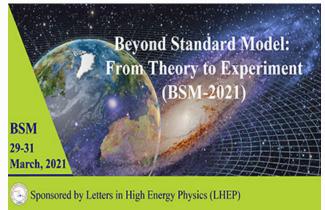






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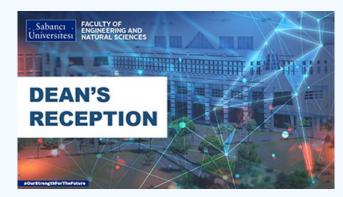






HIGHLIGHTS OF THE FALL

Our latest get-together, **Dean's Reception** has been quite helpful in updating each other on latest developments and understanding our overall vision. We will continue to have this one in coming months.



Our major endeavor in last Fall, the **Research Survey** has been immensely successful. Thank you again for the high participation rate. You will be hearing about this survey in coming months since we work very hard on the data collected and the action plans for improvement.

SHARING EXPERIENCES SPRING LINE-UP

It's all about panels! We have been working hard to prepare the spring lineup for the Sharing Experiences. There will be panel discussions giving opportunity to our faculty to exchange best-practices and know-how on certain topics that you all expressed as the most critical in the Research Survey.

We are also very excited for a new workshop series starting this Spring: **SU Horizons**. In collaboration with ALP, we will be having carefully designed sessions on EU Projects, from technical know-how to best practices.

Stay tuned...



APPROACHING DEADLINES

NEURON ERANET 2021 Call: Neurodevelopmental Disorders

Deadline: 09 March 2021

Flagera 2021 Call Deadline: 19 April 2021

TÜBİTAK (ERA-NET): FLAG-ERA 3

Deadline: April 30, 2021

ICT-Agrifood 2021 Call on "Circularity in mixed crop and livestock farming systems, with emphasis on greenhouse gas mitigation"

Deadline: March 2021



DEAN'S READING RECOMMENDATION

Türkiye'nin uzaya açılan kapısı: Uzay limanı, Ersin Göğüş

Yıldızların Fiziği, Ali Alpar

Where did COVID come from? Five mysteries that remain

Scientists want virtual meetings to stay after the COVID pandemic

ABD'de ilklere imza atan Türk akademisyene göre, kadınların eğitilmesi geleceğe yapılacak en önemli yatırım, Mihri Özkan

"We read the paper that forced Timnit Gebru out of Google. Here's what it says" by Karen Hao, Technology Review



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