

Newsletter

October 2020

'Autumn in my Nano World': Cylindrical magnetic nanowires dispersed in ethanol solution.
Source: Hanan Mohammed (KAUST, Kingdom of Saudi Arabia.)

Newsletter of the IEEE Magnetics Society

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Editor: Gareth Hatch



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From the President

By **Pallavi Dhagat**, *President of the IEEE Magnetics Society*

As I type this, I realize that it will be my last article in our newsletter as President. Yes, nearly two years have gone by since the start of my term in January 2019! It has been an honor and a very enriching experience, professionally and personally, to have served as your President and I would like to thank you all for your support—in particular, our committee and sub-committee members and chairs, editorial boards, and Molly and Regina who have helped run our Society's operations as smoothly and efficiently as ever.



Together we have accomplished much! We have introduced several new initiatives and broadened our Society's activities to continue to benefit our students and members across the globe. We have completed or are close to completing roadmaps for numerous technologies including permanent magnetic materials, magnetic nanoparticle applications and standards, spin orbit torque devices, and novel multiferroic materials. We established a new Society-level award to recognize individuals in mid-career stages who have made outstanding technical contributions to the field of magnetism. This award adds to the Achievement, Distinguished Service and Early-Career Awards made by our Society. We have renewed or expanded our Sister-Society agreements in countries around the world and grown our presence and public outreach via social media. We have new chapters in China and Thailand.

Even as our traditional Summer School and conferences were upended by the COVID-19 pandemic this year, we used the virtual meeting platform to bring our global student community together and organized the first-ever student-led conference in August this year—to huge success, I should add. Our publications will soon offer 'gold' open access for our members. (See article in this newsletter by Publications Chair, Ron Goldfarb.) For these and many more accomplishments, I owe both congratulations and gratitude to all our committee members and volunteers.

Our work will continue even as I wrap up my term. So, let me briefly also update you on the outlook for our Society's operations for the next couple of years. In the wake of the pandemic, we expect our conferences and publications to be impacted most. MMM 2020 and INTERMAG 2021 will be held as virtual conferences. Though many of us may be skeptical of the conference experience in the virtual modality, I encourage you to participate in these conferences, which are being meticulously planned to provide a rich and high-caliber

technical program with numerous networking and professional development events. In years following 2021, our conference modality (face-to-face versus virtual) will depend on prevailing health and safety, and travel conditions worldwide. We are planning for the best possible means under different scenarios to safely bring our community together to share scientific data and network at these future events. Stay tuned!

In another fallout of the pandemic, income from our publications, which is a significant percent of our revenues, is expected to be lower. However, with a healthy balance in our 'rainy-day' funds as well as prudent budgeting for next year, I am confident that we will smoothly navigate the uncertainties and challenges presented by the pandemic.

In closing, I wish you and your families good health, and look forward to joining you at MMM 2020 in a few weeks.

IEEE Sensors Council News

Submitted by Jürgen Kosel, IEEE Sensors Council Representative

The IEEE Sensors Council serves its 26 IEEE member societies, 28 section-level chapters, and 20 student branch chapters in the multi-disciplinary technical area of sensors, covering all aspects of sensors and sensing systems, from design to fabrication and applications for the Internet of Things (IoT). Check out one of our three primary journals: **Sensors Journal**, **Sensors Letters**, and the **Internet of Things Journal**.

Save the date for these Sensors Council conferences in 2020-2021:

- **SENSORS 2020** – Oct 25-Nov 2, 2020, Virtual – Registration is open! Student registrations are just \$15.
- **INERTIAL 2021** – Mar 22-26, 2021, Kailua-Kona, HI, USA
- **FLEPS 2021** – Jun 20-23, 2021, Manchester, UK
- **SENSORS 2021** – Oct 31-Nov 3, 2021, Sydney, Australia

For more information on Sensors Council activities, publications, conferences, and more, visit:

<https://ieee-sensors.org>

Search for Magnetics Society Chief Open-Access Editor

By Ron Goldfarb, Publications Committee Chair

Beginning in January 2021, IEEE's open-access megajournal, *IEEE Access*, will have a section devoted to the Magnetics Society. Although all IEEE journals are hybrid, able to publish both open-access and regular subscription articles, authors from the magnetics community who are required by their

sponsors to publish in a fully open-access journal will be able to submit articles to the Magnetics Society section of *IEEE Access*. By selecting the Magnetics Society section, authors will be assured of reviews by subject specialists. The section will be managed by the Magnetics Society's new Chief Open-Access Editor, who will assume the role of an associate editor of *IEEE Access*.

Magnetics Society members who wish to be considered for this position should send me an email via r.goldfarb@ieee.org describing their qualifications: (1) a doctorate in engineering, physics, materials science, or related area; (2) experience as a journal editor (preferably using the ScholarOne Manuscripts article submission and peer-review system); (3) a broad interest in magnetism and magnetic materials and devices; and (4) an established network in the magnetics community. Applications will be considered until mid-November 2020. The initial appointment for this unpaid, volunteer position will be for two years.

The Chief Open-Access Editor initially will be responsible for managing the reviews of articles submitted to the Magnetics Society section of *IEEE Access*. As the section grows, the Chief Editor additionally will be responsible for appointing several associate editors to efficiently manage the workload. Editorial support will be provided by the staff of *IEEE Access*.

New Senior Members

The following members of the IEEE Magnetics Society were recently elevated to the grade of Senior Member:

August 2020: Weidong Zhou, Rafal Wojda, Yuepeng Zhang, Zhongqiang Hu and Michal Lazarczyk.

October 2020: Arti Kashyap, Ilya Krivorotov, Amaresh Mishra, Jennifer Pollock and Alexander Schwery.

For more information on elevation to Senior Member, visit the [IEEE Senior Member Grade](#) Web page.

First Virtual Around-the-Clock Around-the-Globe (AtC-AtG) Magnetics Conference

By Hans Nembach, AtC-AtG Advisory Board Chair

On August 27, the first edition of the virtual Around-the-Clock Around-the-Globe (AtC-AtG) Magnetics Conference was held with great success, with more than 800 registrations and more than 150 submitted abstracts. Due to the large number of submissions and the single session format, only 40% could be accepted, meaning many good abstracts had to be rejected. Born out of a desire to mitigate the loss of the cancelled IEEE

Magnetics Society Summer School, this conference was special in a number of ways. We wanted to bring the magnetics community from around the world together during this extraordinary time, and to provide a special experience for students and post-doctoral researchers. Hence, we incorporated a 24-hour non-stop format.

We recruited a team of students and postdocs, mostly former Summer School participants, who were organized into three regional sub-committees. They did an extraordinary job in putting this event together on such a compressed timeline, with only minimal guidance from the Advisory Board. Their work exceeded all expectations.

Best presentations awards were conferred for each of the three regions. Asia-Pacific: May Inn Sim (NUS, Singapore), Rui-Hao Li (CWRU, USA) and Namrata Bansal (IITD, India); Europe-Middle East-Africa: Dongwook Go (Forschungszentrum Jülich, Germany), Hector Corte-León (U. Mainz, Germany) and Felix Schreiber (NPL, UK); Americas: Cristina Psaroudaki (Caltech, USA), Corisa Kons (USF, USA), Isaiah Gray (Cornell University, USA). The awards were \$500 each and were sponsored by the IEEE Magnetics Society. It was very difficult to decide among all the excellent presentations.

We wish to thank all the invited and contributed speakers for their help making this conference a success. The members of the Organization Team were: O. Adanakova, A. Aubert, D. Bhattacharya, C. Bull, Á. Díaz-García, N. Joshi, N. Josten, V. Kalappattil, A. Kurenkov, S. Li, T. McKinnon, B. Myint, P. Quarterman, Y. Quessab, A.K. Sahoo, K. Srinivasan, M. Strungaru, Z. Xiao and C. Zhang.

The members of the AtC-AtG Advisory Board were: H. Nembach (chair), B. Kirby, M. Wu, C. Mewes, and T. Mewes.

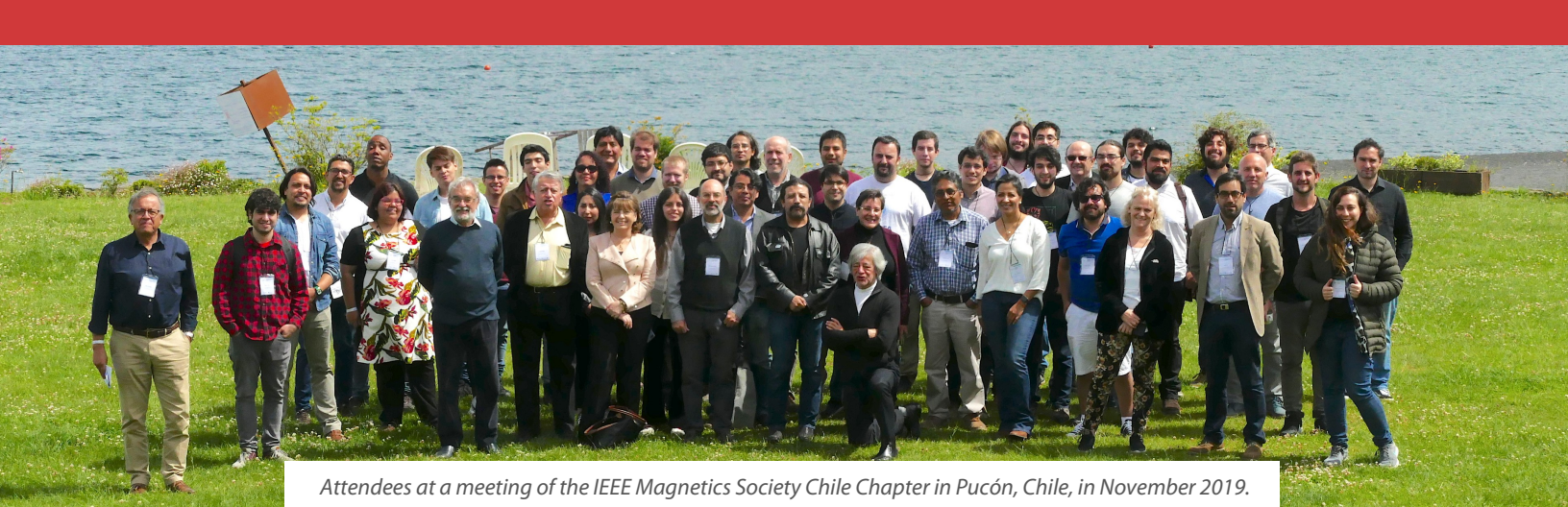
Chile Chapter News

By Juan Luis Palma, Chile Chapter Chair

The IEEE Chile Section Magnetics Society Chapter was established in December 2018, headed by Dr. Juan Luis Palma and Dr. Dora Altbir, with Dr. Sebastián Michea as secretary.

In November 2019, Chapter members participated in a meeting in the beautiful city of Pucón, close to the Villarica Volcano and Lake in southern Chile. Dr. Manuel Vázquez, past-president of the IEEE Magnetics Society, also participated.

The meeting occurred prior to the XI Chile-Mexico Workshop on Magnetism, Nanoscience and its Applications, which convened researchers and students from Mexico, Argentina, Colombia, Spain and Chile. This Workshop is held every year, with the host country alternating between Mexico and Chile



Attendees at a meeting of the IEEE Magnetics Society Chile Chapter in Pucón, Chile, in November 2019.

Dr. Palma gave a talk on the Society on the opportunities that it offers every year, and then opened the discussion to participants, to obtain feedback on member needs and group activities for the next years, with the cheery accompaniment of cocktails.

An additional meeting was held to invite participants from Mexico to create an IEEE Magnetic Society Mexico Chapter. Mexican researchers were very excited about the idea, and discussed plans to form a Chapter in 2020.

Conference Calendar

By **Gareth Hatch**, Newsletter Editor

Please check the conference Web sites shown below for the latest information on COVID-19-related schedule or format changes.

Conference on Magnetism and Magnetic Materials (MMM 2020)

2-6 November 2020 - online.

19th Biennial IEEE Conference on Electromagnetic Field Computation (CEFC 2020)

16-19 November 2020 - Pisa, Italy.

The Joint European Magnetic Symposia (JEMS2020)

7-11 December 2020 - Lisbon, Portugal + online.

MAGNETICS 2021

19-20 January 2021 - online.

INTERMAG 2021

26-30 April 2021 - online.

26th International Workshop on Rare Earth and Future Permanent Magnets and their Applications (REPM2020)

7-10 June 2021 - Baltimore, Maryland, USA.

Advances in Magnetism 2020 (AIM 2020)

13-16 June 2021 - online.

Magnetic Frontiers 2021: Quantum Technology

28 September - 1 October 2021 - New York, New York, USA.

To list your conference in the Newsletter Conference Calendar in a future edition, please contact the **Newsletter Editor**.

Request for Cover Image Submissions

By **Gareth Hatch**, Newsletter Editor

Each edition of the Newsletter features images from the art-related competitions at the INTERMAG and MMM conferences, and from elsewhere. I continue to invite image submissions directly from IEEE Magnetics Society members, to potentially feature on the cover of future editions.

Please send your high-resolution image submissions to me at **g.p.hatch@ieee.org** with a caption or title for the image, a brief technical description, the name of the creator of the image, and their organization or affiliation.

While I can't guarantee that every image submitted will be used, I look forward to receiving your submissions for consideration.

About the Newsletter

The purpose of the Newsletter of the IEEE Magnetics Society is to publicize activities, conferences, workshops and other information of interest to Society members and other people in the area of applied magnetics.

Contributions are solicited from Society members, Officers & other volunteers, conference organizers, local chapters, and other individuals with relevant material. The Newsletter is published quarterly on the Society webpage at: <http://www.ieemagnetics.org>

Please send all contributions via email to the Newsletter Editor, Gareth Hatch, at: g.p.hatch@ieee.org

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