Cancun Student Poster Session Award Winners

Students presenting their posters in Cancun were entered into a competition and had their work judged. There were 86 submissions. The winners were announced on Wednesday evening at the meeting, and ECS President Paul Kohl handed out the prizes.

First Place, Electrochemical Science & Technology, Poster #2196: "Effect of the Components of the Electrode on the Morphological and Electrochemical Performance of Manganese Dioxide-Based Electrode for Application in Hybrid Electrochemical Capacitor," **Axel Gambou-Bosca**, Université du Québec à Montréal; Daniel Belanger, adviser.

Second Place, Electrochemical Science & Technology, Poster #2221: "Electrochemical Dechlorination of 2-Chlorophenol on Ti-Ni, Ti-Pd and Ti-Ni-Pd Electrodes," **Miguel Angel Arellano Gonzalez**, Universidad Autónoma Metropolitana-Iztapalapa; Ignacio González Martinez and Anne-Claire Texier, advisers.

First Place, Solid State Science & Technology, Poster # 2194: "Pulsed Electrodeposition for Preparing Hollow, Conical Needles with Sub-Micron Dimensions," **Andrew Durney** and **Elizabeth Hotvedt**, University of Rochester; H. Mukaibo, adviser.

Second Place, Solid State Science & Technology, Poster #2245: "Thin Films and Superlattices in the Bi-Fe-O System Prepared by ALD," **Andrew R. Akbashev**, Drexel University; Jonathan E. Spanier, adviser.

The General Student Poster Session in Cancun was organized by **Venkat Subramanian**, **Christopher Johnson**, **Rene Lara-Castro**, **Kalpathy Sundaram**, **Vimal Chaitanya**, **Pallavi Pharkaya**, **Matt Foley**, and **Ajit Khosla**.

The session also requires intense efforts of the judges, who, in Cancun, included **Stefan De Gendt**, **Julien Durst**, **Paul Gannon**, **Andrew Herring**, **Andrew Hoff**, **Oana Leonte**, **Shirley Meng**, **Yaw Obeng**, **Alice Suroviec**, **Raluca Van Staden**, and **Natasha Vasiljevic**.

ECS President Paul Kohl presented awards to the winners of the Student Poster Session competition in Cancun. From left to right are: **Andrew R. Akbashev** *(Second Place, Solid State Science & Technology); ECS President* **Paul Kohl**; **Axel Gambou-Bosca** *(First Place, Electrochemical Science & Technology); and* **Andrew Durney** *(First Place, Solid State Science & Technology).*

Brno University of Technology Student Chapter

The Student Chapter associated with the Brno University of Technology in the Czech Republic was founded on October 9, 2006, and is one of the older Student Chapters of ECS. The present member leadership is currently in its third year of activities. The current members are Jiří Libich, Tomáš Kazda, Ondřej Čech, Josef Máca, Michal Musil and David Pléha. The research interests of this group are related to modern battery studies, such as aprotic and polymer-gel electrolytes, negative and positive and general electrode materials for lithium-ion batteries, including such systems as lithium-sulfur and materials such as spinned nanowires.

The members participated actively individually and collectively on various presentations of their results. One notable participation was at the 35th meeting on The Unconventional Sources of Electric Energy (NZEE) held May 21-23 in Blansko, Czech Republic. The other was the second annual meeting of the Student Chapter, held in July in the town of Sloup. Also significant was the participation at the 15th International Conference on Batteries and Accumulators (ABAF) in Brno, Czech Republic. This is an international meeting, which took place this year August 24-28. This meeting was co-sponsored by The Electrochemical Society and a volume of *ECS Transactions* from this meeting will be published. The student chapter members, in addition to their poster presentations and participation at the meeting presentations, were also involved in helping with organizational aspects of the meeting.

Two members of the Brno University of Technology Student Chapter at the poster session of the 15th International Conference on Batteries and Accumulators (ABAF) in Brno, Czech Republic, **Tomáš Kazda** *(left) and* **Jiří Libich** *(right) with* **Petr Vanýsek**, *co-editor of* Interface, *who also participated.*

Drexel University Student Chapter

Dalian University of Technology research group with **Boris Dyatkin** *of Drexel University (third row, third from right).*

As a representative of the **ECS Student Chapter at Drexel University**, **Boris Dyatkin**, Treasurer of the Chapter, was part of a recent international visiting researcher fellowship (from the International Center of Materials Research, University of California – Santa Barbara) that spent eight weeks at Dalian University of Technology in Dalian, China. Dyatkin conducted several activities that promoted information exchange, among them was a tutorial on proper electrochemical methods, including 2-electrode vs. 3-electrode tests, proper reference/counter electrode methods, and impedance spectroscopy. He also gave a talk to the research group of Prof. Jieshan (Jason) Qui of the Carbon Research Laboratory on the implementation of carbon in electrochemistry.

Dyatkin also visited the East China University of Science and Technology (ECUST) in Shanghai, where he met with representatives considering the establishment of a formalized ECS Student Chapter at ECUST. In addition to delivering a talk to the group led by Prof. Wenmin Qiao on carbon in electrochemistry and a novel *in situ* FTIR/Spectroelectrochemistry approach, he hosted a Q&A panel on proper electrochemistry technique and analysis methods.

Atlanta Student Chapter at Georgia Tech

The **ECS Atlanta Student Chapter at Georgia Institute of Technology** organized a grill-out to welcome new students and widely publicize its presence across campus on the cozy afternoon of September 25th. More than 100 students participated and enjoyed the late September Atlanta weather with burgers, hot dogs, and edifying conversation. Every semester, several events are scheduled for all interested students and researchers in the Atlanta area, including lectures, company demonstrations, and social events. Once a year, the Chapter plans the Georgia Section Regional Meeting together with the faculty, inviting students from across the southeast. The group is currently run under the leadership of graduate students **Enbo Zhao** (President), **Naoki Nitta** (Vice President), **Liang He** (Secretary), **Rajiv Jaini** (Treasurer), and **Tim Lin** (Socials Chair). **Peter Hesketh** is the advisor to this chapter.

For the rest of the semester, talks are planned for **Hailong Chen** from Georgia Tech and **Michael Hickner** from the Pennsylvania State University. The Georgia Section Regional Meeting is scheduled for the spring, and will include a poster competition with cash prizes for the best posters. Researchers from across the region are invited to attend. Further information will be posted when available on our website at https://sites.google.com/site/ecsatgt/.

Grilling at Georgia Tech.

Officers of the Atlanta Student Chapter at Georgia Tech: (left to right) **Rajiv Jaini**, *Treasurer;* **Naoki Nitta**, *Vice President;* **Tim Lin**, *Socials Chair,* **Enbo Zhao**, *President; and* **Liang He**; *Secretary.*

Research Triangle Student Chapter

The past few months have been very busy for the **ECS Research Triangle Student Chapter**. Its primary focus has been to bring members together and foster opportunities for student researchers from UNC, Duke, and NC State by collaborating with other local student organizations. In a chapter members highlight, they partnered with students from the Materials Research Society chapters to organize an exciting Triangle Student Research Competition (TSRC). This event incorporated both poster presentations and live technology demonstrations to showcase the cutting edge research done by undergraduate and graduate students from all across the Research Triangle. In addition, in an effort to boost the presence of STEM in the local communities, all participants were asked to make a donation towards local student-led organization named SciRen in lieu of a registration fee. In the end, over 120 students, professors, and industry representatives packed into the symposium, which was held at the Research Triangle Park Headquarters. The large turnout enabled a successful night full of networking, ideas for collaboration, and an increase in ECS student chapter membership. Furthermore, thanks to a collaborative fundraising effort across the universities, winners of the event were awarded cash prizes, free ECS Conference

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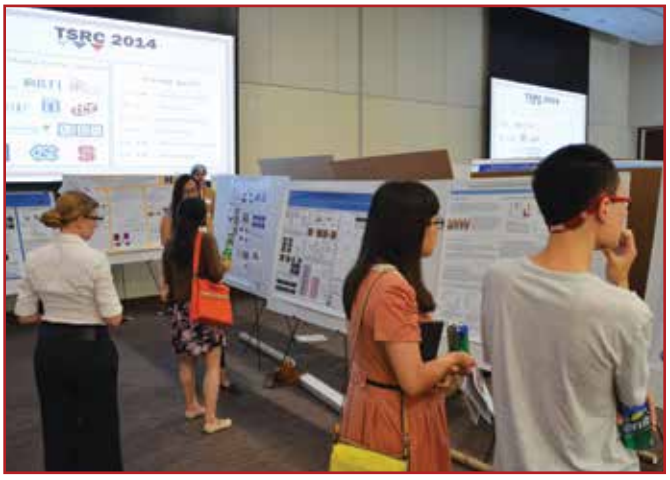

Students explore ongoing research from Duke, UNC, and NC State at the poster presentation of the Triangle Student Research Competition.

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registration fees, and even a full travel grant to showcase their demo to companies on the national stage at a Technology Innovation Forum.

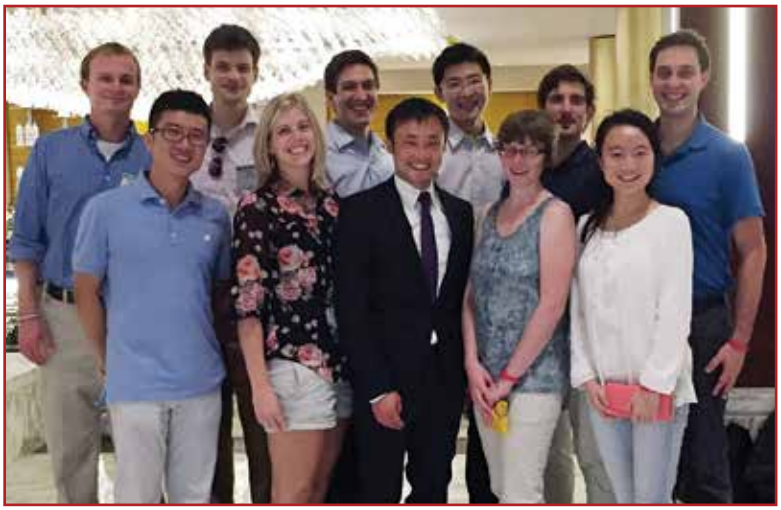
The Research Triangle Student Chapter also had representatives at the fall ECS Meeting in Cancun in October 2014. The chapter chair, **Isvar Cordova**, presented his work on solar fuels and supercapacitors, while **Marty Dufficy** presented his research on "Alginate Nanofibers as a Binder in Lithium-Ion Cells Lithium-Ion Batteries." The Research Triangle Student Chapter has also begun working with other organizations to establish a recurring seminar series, through which they plan on hosting esteemed ECS researchers starting next semester.

Attendees check out the demo presentations during the Triangle Student Research Competition.

Officers of the Research Triangle Student Chapter at the Triangle Student Research Competition, from left to right: **Dominica Wong** *(UNC),* **James Daubert** *(NCSU),* **Isvar Cordova** *(Duke), and* **Marty Dufficy** *(NCSU).*

Research Triangle Student Chapter President **Isvar Cordova** *at Chichén Itzá in Mexico after the ECS Cancun meeting.*

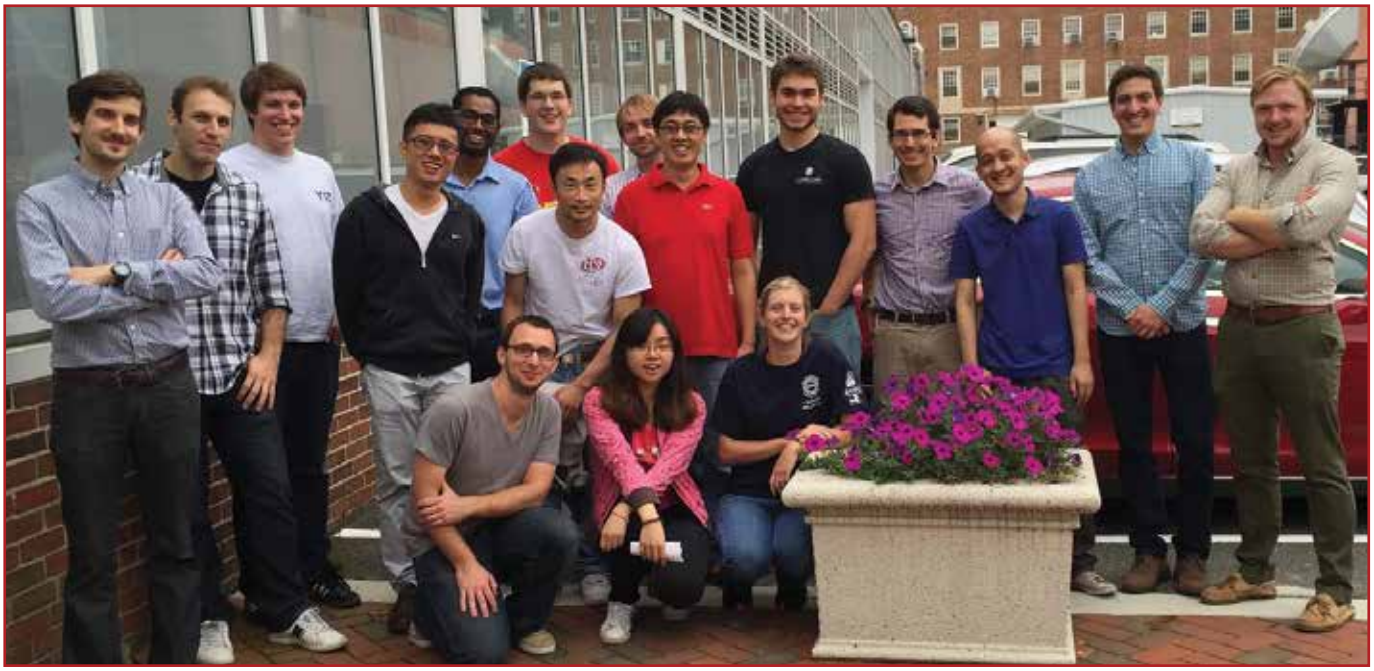
University of Maryland Student Chapter



UMD Student Chapter members in the Nizuc lobby at the Moon Palace resort in Cancun, Mexico.

To begin the new semester, the **University of Maryland (UMD) Student Chapter** held a poster contest on August 15th, with the winners receiving travel assistance to the ECS Fall Meeting in Cancun. Six students presented their research to a panel of faculty judges who evaluated the presentation quality. All of the students had impressive research topics spanning a wide array of energy conversion and storage topics. Many presentations focused on aspects of solid oxide fuel cells (SOFC) or batteries with **Yi-Lin Huang** taking first place for his presentation on "Manganese Implantation into Low Temperature SOFC Cathodes." Second place was a tie between former chapter president, **Colin Gore**, and **Chanyuan Liu**. Colin's poster detailed his research on mechanical and electrical properties of ceramic anodes and Chanyuan's research focused on a nanopore battery array structures. **Chris Pellegrinelli**, **Alex Pearse**, and **Jiayu Wan** also received travel assistance for the conference.

The UMD Student Chapter participated in this year's 226th Meeting of the Electrochemical Society in Cancun, Mexico, sending 11 student members to give oral



UMD Student Chapter members outside University of Maryland Energy Research Center.

presentations. Our high attendance was thanks in large part to six student travel grants we were able to award from our 2012 Outstanding Student Chapter Award funding and to the ECS travel grants our members also won. We were proud to have such a large cohort at the meeting to accept the 2nd Place award for the Outstanding Student Chapter in 2013. At the meeting, our members enjoyed the Sunday Evening Get Together where they were able to network with founders of small companies, professors, and ECS Fellows in a casual setting. We also developed new professional collaborations and friendships and had a great time meeting other student members of ECS at the Student Mixer. In the symposia, our members' interests ranged from lithium ion batteries to solid oxide fuel cells to the energy water nexus. As presenters, we gained valuable insight from leaders; as audience members we learned new approaches and realized new directions for research. The presentations and the evening poster sessions were a unique opportunity to engage in conversations with other scientists in our fields.

University of Texas at Austin Student Chapter

Since 2007, the **ECS Student Chapter at The University of Texas at Austin** (UT-Austin) has carried out its commitment towards promoting solid state and electrochemical sciences by organizing several technical and non-technical talks, networking events, and outreach activities throughout the course of each year. Additionally, the Student Chapter provides support to other events organized by the Center for Electrochemistry, Texas Materials Institute, and the Cockrell School of Engineering at UT-Austin. Our member base includes undergraduate, graduate, and post-doctoral researchers from a diverse range of academic disciplines including chemistry, physics, and materials science; along with members studying mechanical, chemical, electrical, and biomedical engineering.

The UT-Austin Student Chapter has hosted several faculty presentations and student chalk talks over the last few years and has participated in many outreach events such as the annual UT-Austin open-house event, Explore UT. These events have allowed members to share cutting-edge research across different disciplines within and outside the UT-Austin community. This fall semester has brought about the expansion of the ECS Student Chapter into new events and activities.

The UT-Austin ECS Student Chapter was fortunate to host a Q&A session with **David Walt** of Tufts University, founder of Illumina and Quanterix, two companies developing important diagnostic methods

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David Walt *giving entrepreneur advice on "How to Take Academic Research to Industrial Commercialization."*

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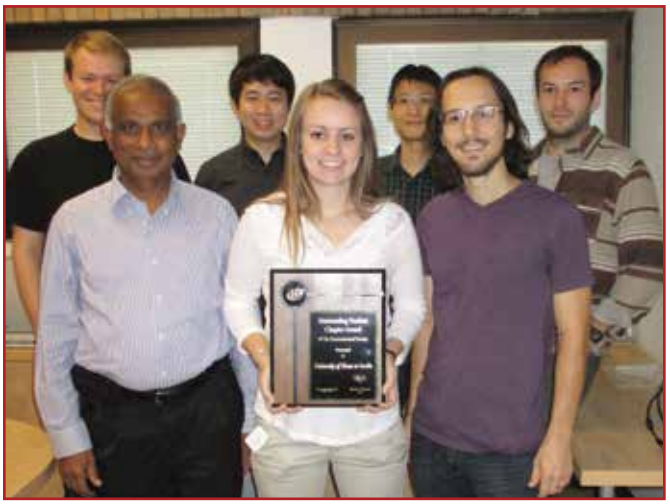
for the life sciences that have made a significant societal impact in recent years. Dr. Walt led a discussion with our members about the commercialization of academic research. He shared with us the challenges faced while managing time between his academic lab and starting up a new company. Dr. Walt also stressed the importance of the partnerships he established with people of high business acumen.

The UT-Austin Student Chapter has recently begun volunteering with SciBridge to help achieve the goal of building strong connections between scientists in Africa and the United States. The first stage of the project was to assemble, test, and distribute sustainable energy experiment kits (dye-sensitized solar cells) to African universities, with the purpose of the kits being to serve as interactive educational tools. It has been immensely rewarding to work with SciBridge towards this endeavor. The first experiment kits have been shipped to Makerere University in Uganda and we are looking forward to receiving feedback. The SciBridge project is made possible by the Materials Research Society (MRS) Foundation Grassroots Grant Award and the solar cell experiment was designed by the University of California, Los Angeles. For more information visit www.SciBridge.org.

The UT-Austin Student Chapter received the ECS Outstanding Student Chapter Award for 2014. We would like to thank The Electrochemical Society for initiating the Student Chapter Program and funding our events, our previous Student Chapter officers (**Preethi Mathew**, **Netzahualcoyotl Curras**, and **Karen Scida**), and the Student Chapter members for making the Chapter what it is, and **Arumugam Manthiram** (Director of the Texas Materials Institute at UT-Austin), the faculty advisor of the ECS Student Chapter at UT-Austin, for his constant and continued support.

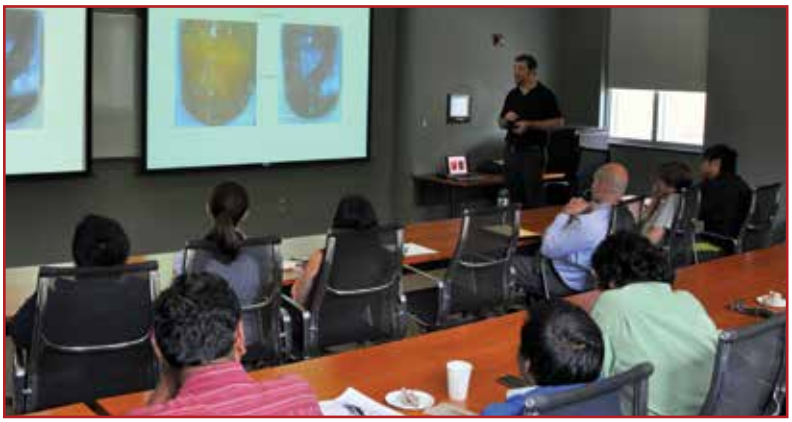
More information about the ECS Student Chapter at UT-Austin can be found at www.ECSStud.com.

UT-Austin Student Chapter members making and testing dye-sensitized solar cell experiment kits with SciBridge. From left to right: **Anthony Dylla**, **Tyler Mefford**, **Veronica Augustyn** *(co-founder of SciBridge), and* **Josephine Cunningham**.



The 2014 Outstanding Student Chapter Award Plaque with (front row, left to right) **Arumugam Manthiram**, *UT-Austin Student Chapter Faculty Advisor;* **Josephine Cunningham**, *Chapter President; and* **Donald Robinson** *Chapter Vice-President; and student members (back row, left to right)* **Matthew West**, **Daeil Yoon**, **Ke-Yu Lai**, *and* **Benjamin Weaver**.

University of Virginia Student Chapter



Students and faculty attending a seminar with guest speaker **Jason Lee** *giving his talk.*

The newly reinvigorated **University of Virginia Student Chapter** is proud to report on the successful launch of its seminar series in July 2014. With the help of Robert G. Kelly, the chapter hosted their inaugural speaker, Raul B. Rebak from GE Global Research in Schenectady, NY. Dr. Rebak presented his work on "Electrochemical Processes Controlling Localized Corrosion in Passivating Nickel Alloys." His presentation showcased how the corrosive or inhibiting processes associated with nickel alloy electrochemistry are dictated by the alloys inherent metallurgy and characteristic electrochemical parameters, as well as by the species present in the aqueous environment in contact with the alloy.

More recently, the chapter organized a second seminar with guest speaker Jason S. Lee from the Naval Research Laboratory in The John C. Stennis Space Center, Mississippi. Dr. Lee was invited to present a seminar

Members of the University of Virginia ECS Student Chapter with associated faculty members and the ECS seminar speaker (from left): **Gilbert Liu**, **Jay Srinivasan**, **Pierce Robinson**, **Scott Lee**, **Raul B. Rebak** *(GE Global Research),* **Robert G. Kelly** *(ECS National Capital Section Vice-Chair and Professor, Materials Science and Engineering),* **Richard P. Gangloff** *(Professor, Materials Science and Engineering),* **Michael Nguyen**, **Noelle Co**, **Mary Lyn Lim**.

highlighting his work on microbiologically influenced corrosion (MIC). Although the topic was new to many of the members, Dr. Lee's presentation on the issues and challenges encountered in the diagnostic, monitoring, and mitigation of MIC sparked great interest.

Both seminars were well-received and brought students and faculty from various departments such as Chemistry, Chemical Engineering, Electrical and Computer Engineering, and Materials Science and Engineering. Students and faculty also had the opportunity to meet and discuss with both speakers prior to and after their respective seminars, which initiated possible collaborations. The success of these events fueled the enthusiasm of the chapter's resident members, and prompted an additional seminar scheduled for November 3rd. For this seminar, the chapter hosted Eric Wachsman, an ECS fellow, from the University of Maryland.

Start a Student Chapter!

ECS currently has 40 student chapters around the world, which provide students an opportunity to gain a greater understanding of electrochemical and solid-state science, to have a venue for meeting fellow students, and to receive recognition for their organized scholarly activities. Students interested in starting a student chapter may contact membership@electrochem.org for details.

Student Awards

ECS Student Awards & Fellowship Program: Call for Nominations

ECS provides a number of fellowships and awards to help students in our field become full-fledged professionals. This is an amazing opportunity to recognize and boost the career of the hard working students you know. Find out more about summer fellowships, awarded student membership, student division and section awards, and more.

For more about the ECS Awards & Fellowship Program go to:

electrochem.org/awards

ECS student awards and fellowships are open to anyone who meets the ECS criteria for being a student. Specific information for each award, and information regarding rules, past recipients, and nominee requirements are available online. Please note that the nomination material requirements for each award vary.

Email questions to: awards@electrochem.org.

The **ECS Summer Fellowships** were established in 1928 to assist students during the summer months in pursuit of work in the field of interest to ECS. The next fellowships will be presented in 2015.

Go to electrochem.org/society to learn more and start the nomination process.

Materials are due by January 15, 2015.

The **ECS Outstanding Student Chapter Award** replaced the Gwendolyn Wood Section Excellence Award, and was established in 2012 to recognize outstanding ECS Student Chapters. Up to three winners will be selected. One Outstanding Student Chapter will be selected with the winner receiving $1,000, and recognition with a plaque and chapter group photo in *Interface*. One or two additional Student Chapters may be selected as runners-up, and designated as Chapters of Excellence. Recognition certificates will be mailed to the Chapters of Excellence. The next awards will be presented in 2015.

Go to electrochem.org/student to learn more and start the nomination process.

Materials are due by March 31, 2015.

The **Student Research Award of the Battery Division** was established in 1962 to recognize promising young engineers and scientists in the field of electrochemical power sources and consists of a scroll, a prize of $1,000, waiver for the meeting registration, travel assistance to the meeting if required, and membership in the Battery Division as long as a Society member. The next award will be presented at the ECS fall meeting in Phoenix, Arizona, October 11-16, 2015.

Go to electrochem.org/student to learn more and start the nomination process.

Materials are due by March 15, 2015.

The **Canada Section Student Award** was established in 1987 for a student pursuing, at a Canadian University, an advanced degree in any area of science or engineering in which electrochemistry is the central consideration. The award consists of consists of a monetary award determined by the Section Executive Committee not to exceed $1,500 US. The next award will be presented at a meeting of the Canada Section in 2015.

Go to electrochem.org/student to learn more and start the nomination process.

Materials are due by February 28, 2015.

Student Travel Grants

Several of the Society's Divisions offer travel assistance to students and early career professionals presenting papers at ECS meetings. For details about travel grants for the 227th ECS meeting in Chicago, Illinois, please see the Chicago Call for Papers; or visit the ECS website: electrochem.org/student/travelgrants.htm. Please be sure to click on the link for the appropriate Division as each Division requires different materials for travel grant approval prior to completing the online application. You must submit your abstract and have your abstract confirmation number in order to apply for a travel grant. If you have any questions, please email travelgrant@electrochem.org. **The deadline for submission for spring 2015 travel grants is January 1, 2015.**

Awarded Student Memberships Available

ECS Divisions are offering Awarded Student Memberships to qualified full-time students. To be eligible, students must be in their final two years of an undergraduate program or enrolled in a graduate program in science, engineering, or education (with a science or engineering degree). Postdoctoral students are not eligible. Awarded memberships are renewable for up to four years; applicants must reapply each year. Memberships include article pack access to the ECS Digital Library, and a subscription to *Interface*. To apply for an Awarded Student Membership go to electrochem.org/student.