

2022 LMC Chair's Remarks

Howard Wolfman, Chair, Life Members Committee



*IEEE Life Members
Committee Chair
Howard Wolfman*

Welcome to the April 2022 issue of the *IEEE Life Members Newsletter*. The nine Life Members Committee (LMC) members, the 10 Region LMC coordinators, Newsletter Editor Charles Turner, the IEEE staff, and others are working to bring you a potpourri of items of interest to our Life Members (LMs).

As the world recovers from the COVID-19 pandemic, our 122 Life Members Affinity Groups (LMAGs) around the world can restart face-to-face meetings, as well as continue virtual or hybrid meetings that allow global sharing of presentations.

The 2022 LMC Goals and Projects to better serve you, our members, and IEEE and Society, include some of the following (more about these goals and projects in the newsletter or other communications):

- complete development of the LMC website that will include timely postings of meetings of interest to our Members and other information
- explore a simplified path for LM elevation to Life Senior Member. Many of our LMs are qualified to be “elevated” to Life Senior Member but may not have the required references; we are exploring an approach that will comply with existing IEEE and MGA processes, but will be easier for our LMs to navigate
- continue to expand the number of LMAGs and publicize LMAG activities that benefit our LMs, IEEE, and Society
- implement our upgraded awards program that recognizes outstanding LMAGs in each of the 10 IEEE Regions as well as globally



TABLE OF CONTENTS

1	2022 LMC Chair's Remarks
3	An Amazing Career: Gerard (Gus) Gaynor at 100!
3	Reports from Life Member Affinity Groups
13	IEEE Life Members Affinity Group Awards
13	History Activities
14	News From the IEEE Foundation
16	2021 IEEE Donor Profile: Maxine Cohen
16	Region Coordinator Highlight
17	LMC Support for Education
17	Life Members on IEEE Collabratec Surpass 7,000
18	Remembering David John Kemp and Michel E. Poloujadoff
18	Introducing the New 2022 LMC Members
19	Tales from the Vault
21	Publication of <i>IEEE Life Members Newsletter</i> Our Mailing List Submitting Articles Stopping IEEE Services IEEE Contact Center 2022 Life Members Committee Qualifying for Life Member Status Have Questions?

- develop a program for
 - virtual/hybrid meetings to serve those LMs who are not in areas served by LMC Affinity Groups
 - comprehensive communications to inform LMs of these meetings and motivate them to participate
- fundraising (this is the financial engine that powers our activities)
 - participate in the IEEE Foundation's 50th year observance to facilitate donations to the Life Members Fund
 - promote greater participation in the existing Life Members Heritage Circle.

Newsletter Updates

Charles Turner, who has served as the newsletter's venerable editor for the last several years, has indicated that he would like to step down; hence, the LMC is searching for a new newsletter editorial team. The position's description follows. If you are interested in or know

someone who may be interested in joining the team, please contact me at h.wolfman@ieee.org and copy j.day@ieee.org.

IEEE Life Members Newsletter—Editor and Coeditor Positions Available

The LMC has an exciting opportunity for members interested in enabling its communications with IEEE's nearly 40,000 Life Members, by joining the newsletter's editorial team. The work involves networking with a distinguished group of technology and engineering professionals, learning and honing leadership and project management skills, and advancing the mission of IEEE. The editor/coeditor team will be primarily responsible for working with LMC members and the LMAGs, using basic skills in text editing and the layout/design of images and photos for a high-quality newsletter. The editor/ coeditor will also have the following responsibilities:

1) Liaising with the LMC chair, the IEEE Publications Department, and LMC support staff, to ensure that the newsletter is processed and mailed in a timely manner. Three issues of the newsletter are published annually, two electronic only (April and August) and one print edition (December). A PDF version of each issue is posted on the MGA website, along with past issues.

2) Issuing calls for contributions from LMC members, the Region coordinators, and Life Members, about their activities in all 10 Regions.

3) Ensuring compilation of newsletter content, including remarks by the LMC chair, LM activities news and reports, and contributed articles.

4) Light editing of text articles, and coordinating with the IEEE publishing staff to ensure that text and photos are in an acceptable format for publication in either electronic or printed form, as required.

LM

An Amazing Career: Gerard (Gus) Gaynor at 100!

Gerard (Gus) Gaynor, IEEE Life Fellow, brings experiences from a career that spanned the technical and management disciplines. His early career involved upper atmosphere research at the University of Michigan, followed by product development, a personal entrepreneurial venture followed by 25 years of service at 3M in major engineering and executive assignments. During seven years of residence in Europe, Gaynor served as chief engineer of 3M Italy and director of engineering for 3M Europe and on the 3M Italy Board of Directors and 3M Europe Executive Committee.

After retiring from 3M, Gaynor organized G.H. Gaynor and Associ-



ates concentrating on managing engineering, technology, and innovation. He has authored five books related to managing technology and innovation including McGraw Hill's

Handbook on Technology Management. Gaynor has also published more than 50 papers. Gaynor had two foreign Fulbright Scholar appointments and served as adjunct professor at St. Thomas University and as a lecturer at the University of Minnesota graduate programs on managing technology and innovation.

Over a period of 30 years, Gaynor has served on many IEEE committees such as the Publications Services and Product Board and the Technical Activities Board (TAB) for more than 15 years and was inducted into the TAB Hall of Honor for his work in developing IEEE *Xplore*. He was the founding editor of IEEE USA's *Today's Engineer*. LM

Reports from Life Member Affinity Groups

There are currently 120 Life Member Affinity Groups (LMAGs). At least that many Sections are well positioned to create their own LMAG with a viable number of Life Members (LMs). A Section with an LMAG can provide a better service to its LMs and can receive up to a maximum of US\$2,000 each year to support small-scale activities and projects. Full details are available on the MGA website about the petition process for forming an LMAG.

Region 1

North New Jersey Section LMAG (Chair: Michael Miller)

Webpage: <https://r1.ieee.org/northjersey-lm/>

Social Network used: Facebook

- Awards: Outstanding Achievement Award (OAA) 2021: Ronald Quade.

- Reports were provided on Vtools of events held in 2021.
- A total of 15 events were held in 2021. Due to the pandemic, all events were held virtually utilizing GoToMeeting.
- Virtual sessions were opened an hour before the scheduled program in an effort to provide an opportunity for guests to network.
- Continuing education units were offered for Professional Engineer Registration requirements in both New York and New Jersey and four additional technical/administrative meetings were held.
- Over 1,888 people attended our activities in 2021.
- One candidate was identified for presentation of the Life Member Activity Group's (LMAG's) Outstanding Engineer Award at our Awards Reception in May 2022.

- Due to COVID-19, our annual PES Life Grade "Luncheon" was held virtually with a presentation by Ray Alvarez, senior director at PSE&G, on the topic of the utility of the future.

As a courtesy to members and prospective members, we waived the fees for all virtual courses and continuing education credits. IEEE automated the CEU process for LMAGs. This was a tremendous help and time saver allowing us to continue offering bimonthly seminars.

Region 5

Lone Star Section LMAG (Chair: T. Scott Atkinson)

In 2019, the San Antonio Life Members Affinity Group (LMAG) was awarded a grant from the IEEE Life Members Committee (LMC) to build displays for the San Antonio



Students involved with the demonstration.

Museum of Science and Industry (SAMSAT). The museum is relatively new to San Antonio and was built on the collection of artifacts owned by David Monroe, formally a vice president of Datapoint Corporation. Our LMAG's objective was to add some displays to the museum with cybersecurity as the focus.

By early 2020, the displays were essentially complete. The primary and largest display was for a Special Operations Center (SOC) consisting of a large wall of monitors and two rows of computers with monitors.

The SOC is a hands-on activity primarily focused for STEM students to understand the operations of clearing cybersecurity issues.

During the January 2020 LMC meeting in San Antonio, the LMC members and guests visited the SAMSAT Museum to view the cybersecurity displays as well as the rest of the artifacts in the museum.

For more information, contact area21@samsat.org or Scott Atkinson at s.atkinson@ieee.org.

T. Scott Atkinson, Chair, Life Members Group, Lone Star Section

Pikes Peak and Denver Section LMs Tour the National Museum of World War II Aviation

On 12 June 2021, Life Members (LMs) from the Pikes Peak and Denver Sections toured the National Museum of World War II Aviation located in hangars at the Colorado Spring Airport/Peterson Air Force Base (AFB) in Colorado Springs, Colorado.

The museum featured 18 fully restored and flyable World War II aircraft along with military vehicles used during the war. The museum documents the role that military aviation played in the emergence of our nation as a world power, and it also tells the story of the tremendous technological advancements in aviation during the war and the contributions and sacrifices of the men who won the air war.

Our tour guide was Colonel Jim Palmer, Air Force Retired, former commander of the 3rd Space Support Wing, based at Peterson AFB.

Following the tour, the LMs had lunch at the Airplane Restaurant, which is located near the airport. This unique restaurant is partially housed in an Air Force tanker airplane.



Pikes Peak and Denver LMAGs pose in front of a B-25 bomber used in the Doolittle raid during World War II.

Military Computer History Presentation

David Bondurant, Pikes Peak IEEE Life Members Affinity Group (LMAG) chair, presented, via Zoom, military computer history for the June and July meetings of the Pikes Peak LMAG.

The first presentation, “Univac Defense Systems Division: From Codebreakers to Military Standard Computers,” covers the period from 1940 to 1970 as the U.S. Navy code breaking operation under the command of Captain Joseph Wenger develops analytical computing engines to break Japanese, German, and Italian codes during World War II. The presentation describes the development of the first tube computers of this time period including ENIAC, EDVAC, EDSAC, and Whirlwind. At the end of World War II, the Navy needed to continue code breaking operations during the Cold War. They formed a private company, Engineering Research Associates in St. Paul, Minnesota, with a covert side business building



Captain Wenger, head of Navy code-breaking activity during World War II, and vice director of the NSA (1952).

code breaking machines. By 1952, the Navy code breaking activity was merged into a single security operation known as the National Security Agency (NSA) with Captain Wenger as vice director. ERA Associates built the first two stored program code breaking computers, Atlas I and II, for the NSA. ERA became part of Remington Rand and then Sperry Rand Univac. Atlas I and II became available commercially as the Univac 1101 and 1103 computers. Univac Defense Systems continued as the military computer activity with the Navy actively engaged in the background. They developed families of Navy Standard Computers for the Navy Tactical Data System installed in the Navy Fleet, computers for the Marine Corp, Air Force, NASA, and FAA using transistors and DTL integrated circuits.

The second presentation, “Univac Defense Systems: From Microprogram Controllers to COTS,” covers the period from 1970 until the present as Univac Defense Systems becomes Unisys, Loral, and then Lockheed Martin. During this period, computers moved from hardwired to microprogrammed, standard military computers follow industry moves to 16-bits, and technology moves to TTL, Bit Slice Microprocessors, and Gate Arrays until they were finally replaced by commercial off-the-shelf microprocessors. Univac continued to be the primary supplier for the Navy Fleet and developed avionics computers for Naval Aviation, B-1 and B-2 bombers, and F-35 fighters. Univac programmable signal processors were used by VHSIC and FAA NEXRAD programs.

Videos of these presentations are available from David Bondurant: contact him at dbondurant@mac.com.

Region 6 Phoenix Section LMAG

The Eighth Annual IEEE Rising Stars Conference

Creating a Critical Value Bridge: Moving From IEEE “Stellar Nebula, through Red Dwarf, to Become Supergiants”

Do you remember when you graduated from college, started your new job, got your first promotion, or met your company president? When did you attend your first IEEE conference? When did you meet the IEEE president or Region director?

Now move forward in time. Life Members (LMs) can provide support to our young professionals and university students to accomplish what many of us never experience. In addition to sponsoring the poster competition, the support of LMs provides attendees the opportunity to meet corporate leaders and thought leaders and the ability to exchange ideas with senior IEEE leaders and industry influencers, all under the guise of the IEEE Rising Stars Conference.

On 2–4 January 2022, in Las Vegas, Nevada, United States and around the world, IEEE hosted the Eighth Annual Rising Stars Conference. There were almost 300 young professionals and Student Members who registered for the conference,



John McDonald at the Rising Stars Conference.

either face-to-face in Las Vegas or through the virtual platform. For most attendees, Rising Stars is their first IEEE major event experience. The conference had over 50 industry leaders as featured speakers for the event.

Imagine...in addition to the sponsors and exhibitors, all attendees could share ideas, explore possibilities, and get a glimpse into the future of technologies with at least 11 presidents, CEOs, and COOs; two vice presidents; five corporate engineering directors; six corporate founders; 12 senior managers; an evangelist...and one chief penguin!

The conference organizers, sponsors, and supporters all believe that young professionals and students need to create opportunities to address their collective need to network with representatives of leading companies to gain direct access to professionals within their fields of interest. The Rising Stars Conference accomplished this through recruiting companies and key executives to present at a variety of workshops, sessions, panels, and corporate and professional mixers.

LMs provided four remarkable speakers to the conference program. Vint Cerf, John Treichler, John McDonald, and Michael Andrews all hosted sessions with topics that focused on linking emerging technology, personal networking, and professional growth, to a personal strategy for success.

In addition to the LMs, there were many IEEE Societies and operating units. The corporations represented included such diverse companies as AWS, IBM, Qualcomm, Keysight Technologies, Analog Devices, Boeing, Google, Redwire Space, Raytheon, Los Alamos National Labs, Bentley Systems, John Deere, L3-Harris, Locomotion, and many others.

At the conference, attendees participated in the selection of techni-

cal track sessions, which had industry experts representing emerging technologies, or the professional development track, where they learned vital skills for thriving in a corporate setting.

The conference closed with “The Next Big Thing” panel. Panel members are asked to gaze into their crystal balls and make predictions of what to expect, in their industry or market sector, in the next three to five years. Importantly, the skills that will be needed by young professionals to succeed in their chosen industry.

Our next Rising Stars Conference is 3–5 January 2023. What can you do to make an impact on its success?

*Michael Andrews Region 6
Life Member Coordinator
michael@andrews-associates.com*

Region 7 IEEE Canada

Hamilton Section LMAG

Terry Branch, IEEE Canada, Life Member Activity Group (LMAG) regional coordinator shares that every project or operation has risks. It is prudent to find these risks and mitigate them to prevent unsafe conditions and financial meltdowns. Terry states that it is important in the professional development of engineering students and young

engineers that they understand how to assess risks.

Terry Branch is a professional engineer and principal of PDR Technologies Inc. The firm supports organizations’ efforts in mitigating risks in projects and operations. Terry is a very active IEEE Life Senior Member who supports the mission vision and goals of IEEE.

He has been engaged with students in the University of Toronto (U of T) Engineering Strategies and Practice (ESP) program since 2015. This is a program for the first-year students who are enrolled in engineering at U of T. Terry expressed that he finds the experience very fulfilling and rewarding and gives him an opportunity to share his engineering experience and knowledge with the students.

In the first quarter and part of the second quarter of 2021, Terry was engaged with three groups of students on three separate projects, in the U of T ESP program. The IEEE Region 7, Hamilton Section LMAG gave the Students’ Team the opportunity to share their project experience on an IEEE online Event. The title of their project was “Risk Assessment Methodology for Equipment Maintenance.” One of the student team members expressed that the project was a valuable experience for their team members. She shared that the overall ESP experience allowed them to solve real-life engineering problems while still in the academic environment. The project experience showed them how to think, work, and communicate like engineers.

Let’s Talk About Risks

In this article, I will address a challenge that a reader shared with me after reading my article “Let’s Talk About Risks” in the March 2021 issue of the newsletter. His challenge was in determining “the



Terry Branch.

probability that one of several risks that he catalogued for a New Technology (NT) would lead to a loss of the NT.” He did not name the NT and it really does not matter. The presence of RISK is always to cancel benefits. In other words, the aim of RISK is to have a loss. Our aim as risk evaluators is to prevent losses from happening or control the RISKS to achieve benefits. It is a balancing act between risks and benefits. It helps us to become good at managing asset risks. The simple formula ($RISK = SEVERITY \times PROBABILITY$) that I stated in the March *Life Members Newsletter* is key in managing risks in tangible and intangible assets. An NT asset could be either tangible (e.g., physical) or intangible (e.g., software). Before analyzing and evaluating risks in assets, establishing a methodology that includes the set-up or framework, writing hazard scenarios and having the right criteria for Severity and Probability parameters, is extremely important for a systematic risk assessment approach.

We will be discussing the attributes of this approach in a future issue of the newsletter. In this article, we will assume that a methodology

was already established with four levels for each of the risk parameters. An asset with a Probability Level 4 means that the failure of the asset is almost certain, and a Probability Level 1 means that the failure is unlikely to occur. An asset with a Severity Level 4 means that the consequence of the failure could be catastrophic, and a Severity Level 1 means the consequence is negligible. Consider two possible approaches to determine the NT risks. The first approach will highlight NT elements’ risk levels. The second approach will highlight each NT risk level. In both approaches the highest risk rating is 16, where Severity is 4 and Probability is 4. Based on the reader’s description of his challenge, in using the first approach, I would suggest that instead of cataloguing risks as the reader has done, list the “elements” or “components” of each NT with risks. Next, write a hazard scenario for each of the NT elements. Highlight from the hazard scenarios the abnormal conditions for each element and evaluate the risk level of each element using previously established Severity and Probability criteria. This approach highlights the NT

elements with serious risks (Severity=4 and Probability=4) that would cause the NT to fail, impacting its reliability and benefits. The second suggested approach requires listing each NT. There could be one or more NTs. Write a global hazard scenario for each NT and use it to identify potential abnormal conditions in the NT. Evaluate the NT’s risk of loss using the Severity and Probability criteria established. Whether several Elements of each NT are evaluated or the NT itself is evaluated, the risk levels are presented in the heat map shown below. It highlights in the red area elements or NTs with serious risks.

*Terry Branch, PEng.
PDR Technologies Inc.*

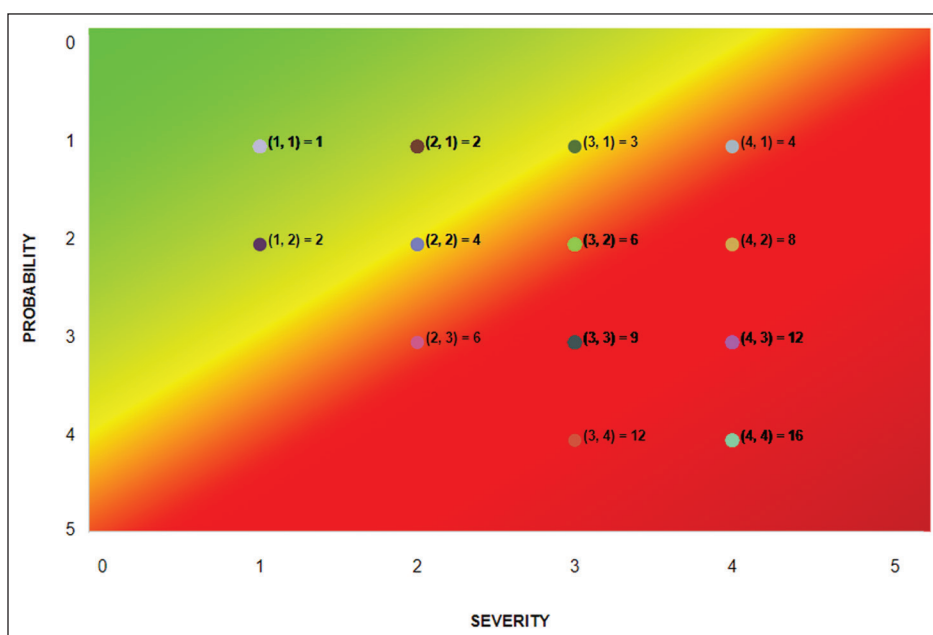
Region 8

United Kingdom and Ireland Section LMAG

This report contains a summary of the December 2021 LMAG webinar, given by Prof. Peter Grant, Emeritus Regius Professor of Electrical Engineering at the University of Edinburgh; see <https://www.ieee-ukandireland.org/watch-again-lmag-webinar-how-maxwell-created-the-modern-world-by-peter-grant-obe/> combined with an introduction to Maxwell’s Edinburgh Museum.

How Maxwell Created the Modern World

The James Clerk Maxwell Foundation was formed in 1977 on the initiative and generosity of the late Prof. Sydney Ross, of Rensselaer Polytechnic Institute, New York. In 1993, the foundation was able to expand and purchase, by public subscription and Scottish Government support, 14 India Street, Edinburgh, the initial home of James Clerk Maxwell. Maxwell’s father had also inherited the estate of Glenlair in





The James Clerk Maxwell Foundation home at 14 India Street, Edinburgh.



Glenlair in Maxwell's time, before the 1920s fire.

Galloway, Scotland and the family divided their time between Glenlair and their 14 India Street townhouse, where Maxwell was born on 13 June 1831. The family moved to Glenlair when Maxwell was two years old.

Maxwell's mother stated that he had an inquisitive childhood ... "he has great work with doors, locks, keys, etc., and "show me how it doos" is never out of his mouth." She died of stomach cancer when Maxwell was only eight years old and, two years later in 1841, he returned from Glenlair to attend school at the Edinburgh Academy.

James Clerk Maxwell as a Child

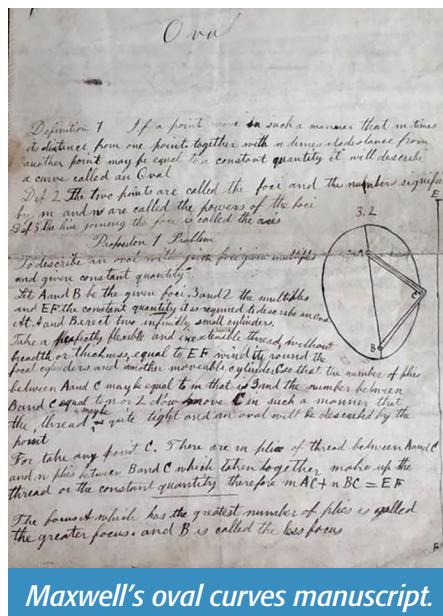
On display in the museum are a few original pages on loan from the Edinburgh Academy, of Maxwell's

very first scientific paper "On Oval Curves," written when he was only 14 years old. The paper was read by a fellow at the Royal Society of Edinburgh, but not by Maxwell, as he was not old enough!

After school Maxwell initially studied at the University of Edinburgh from 1847 to 1850 before he moved to Trinity College, Cambridge. In 1857 Maxwell's essay "The Stability of Saturn's Rings," won the Adams Prize at Cambridge for his postulation that Saturn's rings comprised many isolated solid particles rather than gases (there were no other entries!).

Maxwell's academic career was initially based from 1856 to 1860 as professor of natural philosophy at Marischal College, Aberdeen, and where, in 1858, he married Katherine Dewar, daughter of the college principal. He was appointed as professor of natural philosophy at King's College, London from 1860 to 1865. After some years of personal study at Glenlair, he was invited in 1871 to establish and direct the Cavendish Laboratory, Cambridge, as the first professor of experimental physics.

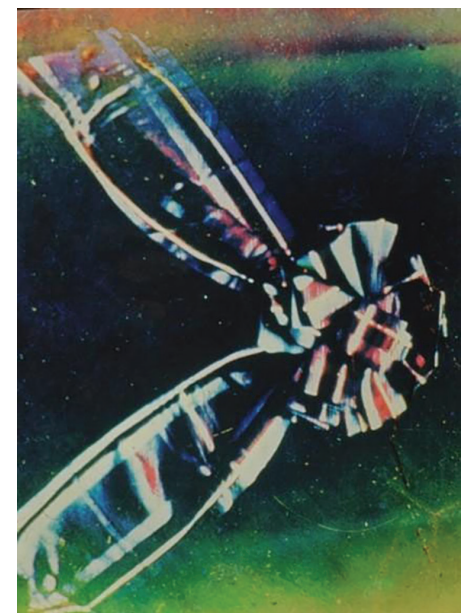
The first of Maxwell's major scientific contributions was actually on



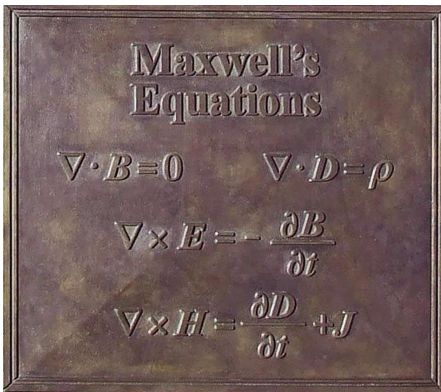
Maxwell's oval curves manuscript.

color composition, which he researched using a light box and spinning wheel, discovering that all colors could be generated by mixing appropriate samples of red, green, and blue light. He based his red-green-blue model on additive trichromatic color vision, developed earlier by Young and Helmholtz in the 19th century. Maxwell extended this into a color triangle showing all the colors, which could be created by mixing different proportions of red, green, and blue light.

Maxwell's first full-color projected image was famously demonstrated at the Royal Institution in London. He achieved this by making three black and white photographic plates photographed through red, green, and blue filters respectively. He then used three magic lanterns to superimpose these three black and white images, each projected through the same red, green, and blue filters, to produce the first color image of the "tartan ribbon." This major technical achievement, the production of color images with three filters, is still widely used today in color printing and at the heart of all digital TV, smartphone,



Maxwell's first color photograph of the "tartan ribbon."



Maxwell's equations, as displayed below his Edinburgh statue.

and computer displays. His 1860 Royal Society Rumford Medal Award, for these innovations on color, is on permanent display in the museum.

Maxwell's most significant contribution, as regarded by electrical engineers, was in defining the equations governing electromagnetics ("Maxwell's equations"), which form the foundation of today's electro-technology. In his famous 1865 paper, Maxwell defined electromagnetics in terms of 20 equations. When Maxwell published his 1873 "Treatise on Electricity and Magne-

tism," he compressed his 20 equations to eight by using the quaternions promoted by Peter Guthrie Tait. Heaviside later saw the need to restate the equations and so, in 1885, he developed the now familiar vector form. In the 20th century, Lorentz gave the equations a microscopic basis, as the fundamental equations of electrodynamics, before Willard Gibbs provided us with the familiar notation we use today.

In the museum we display a modern reproduction of a balance arm, the apparatus Maxwell used to measure the ratio of electromagnetic to electrostatic units of electrical charge. Maxwell showed mathematically that the numerical value of this ratio was equal to the speed of electromagnetic waves. Maxwell recognized that the speed of electromagnetic waves was equal to the speed of light. Thus Maxwell stated in his 1865 paper "...it seems we have strong reason to conclude that light itself (including radiant heat and other radiations if any) is an electromagnetic disturbance in the form of waves propagated... according the electromagnetic laws." This was



Edinburgh statue by the sculptor, Alexander Stodd.

probably the most stunning conclusion of 19th-century theoretical physics!

Hertz demonstrated in 1888 for the first time, only nine years after Maxwell's death, the practical existence of electromagnetic waves. Guillermo Marconi made the first practical use of these to transmit a Morse-coded radio message in 1897.

Maxwell died of stomach cancer on 5 November 1879 and is buried in the family vault at Parton, Castle Douglas. His life was commemorated in 2008 with the unveiling by the Royal Society of Edinburgh of an Edinburgh statue complete with his color wheel and dog Toby. The plinth has friezes which place Maxwell as *the* most significant scientist in the era between Newton and Einstein. When Einstein was asked if he "stood on the shoulders of Newton," Einstein replied no ... "I stood on the shoulders of Maxwell!"

The India Street Museum features a set of wall posters celebrating Maxwell's other major scientific achievements: on governors for machine speed control; statistical physics resulting in the Maxwell-Boltzmann distribution; discovery of the nature and form of Saturn's rings; contribution to the committee that defined the ohm; reciprocal figures for

Philosophical Transactions of the Royal Society of London. Vol. 155 (1865), pp. 459-512.

VIII. *A Dynamical Theory of the Electromagnetic Field.* By J. CLERK MAXWELL, F.R.S.

Received October 27,—Read December 8, 1864.

PART I.—INTRODUCTORY.

(1) THE most obvious mechanical phenomenon in electrical and magnetical experiments is the mutual action by which bodies in certain states set each other in motion while still at a sensible distance from each other.

(3) The theory I propose may therefore be called a theory of the *Electromagnetic Field*, because it has to do with the space in the neighbourhood of the electric or magnetic bodies, and it may be called a *Dynamical Theory*, because it assumes that in that space there is matter in motion, by which the observed electromagnetic phenomena are produced.

(4) The electromagnetic field is that part of space which contains and surrounds bodies in electric or magnetic conditions.

The introduction to Maxwell's 1865 Electromagnetics manuscript.



Exhibition room portraits of Maxwell's maternal relatives.

calculating stresses in the design of structures such roofs and bridges (recognized by the 1869 Royal Society of Edinburgh, Keith Medal). These posters can be downloaded at www.clerkmaxwellfoundation.org/html/media_library.html.

The foyer contains two IEEE “Milestone in Electrical Engineering and Computing” plaques. The 2009 one commemorates Maxwell’s theoretical contributions on electromagnetic theory. It is one of three identical plaques, the other two being in the entrance porch at Glenlair, and in King’s College, London. The other, more recent 2019 plaque, which duplicates the one in the Hunterian museum in Glasgow, commemorates Maxwell’s contribution with Kelvin, Fleeming Jenkin, Werner Siemens, and others to the committee that defined and stan-

dardized the ohm as the international unit of electrical resistance.

Further information can be found at: <https://clerkmaxwellfoundation.org/india-street/housetour.html> which provides a virtual tour of the museum.

Foundation trustee, James Rautio, has an Amazon 2020 reprint, incorporating additional modern material, no: 9798618455046. <https://www.amazon.co.uk/Life-James-Clerk-Maxwell-Illustrated/dp/B0858TPFYF>.

Region 10

Region 10 started LMAG meetings in 2020. During 2021, three LMAG meetings were organized and all 21 LMAGs were invited. The second LMAG meeting held on 18 September 2021 was attended by 42 participants, including 16

LMAGs, LMAC members, Prof. Toshio Fukuda, Past IEEE President Prof. Akinori Nishihara, Past Region 10 Director Deepak Mathur, the current Region 10 director, and Dr. Suresh Nair, chair, IEEE India Council.

During 2021, five new LMAGs were formed in Region 10 in Singapore, Taipei, Kolkata, Sapporo, and Queensland.

A special F2F Meeting organized by the Delhi Section on 2 December 2021 was attended by two Region 10 directors. Past Region 10 Director, Dr. Harbans L. Bajaj (1997–1998) and current Region 10 Director Deepak Mathur (2021–2022).

R10 LMAGs have organized 208 activities during 2021 compared to 75 in 2020. Activity wise, the four top-performing R10 LMAGs are Kerala (75), Delhi (34), Tokyo (18), and Hyderabad (10).

CESC Limited (formerly known as the Calcutta Electric Supply Corporation) has been presented with the coveted IEEE Milestone commemorating the establishment of the first commercial electric supply company in South Asia on 17 April 1899. This event heralded the era of electricity in the Indian subcontinent. CESC, in collaboration with IEEE, organized the Milestone Dedication Ceremony on 18 December 2021, at the CESC House and Lalit Great Eastern Hotel.



The Region 10 Life Member coordinator meets with past and current Region 10 directors.



The IEEE Milestone Dedication ceremony.

On 18 December 2021, the IEEE Milestone was unveiled by Deepak Mathur, IEEE Region 10 director; Rabi Chowdhury, managing director (Generation), CESC; Debasish Banerjee, managing director (Distribution), CESC; in the presence of Prof. Sushmita Mitra, chair IEEE, Kolkata Section, and Gautam Ray, executive director (HR & Administration), CESC. The IEEE Milestone received by CESC is the third such honor received by Kolkata and the fourth of its kind for India.

*Peter Grant,
Emeritus Regius Professor of Electrical
Engineering at the
University of Edinburgh
Peter.Grant@ed.ac.uk*

Taipei Section Life Member Affinity Group

Under the guidance and assistance from Prof. H.B. Gooi (Singapore LMAG) and R10 LMC Chair Rajendra K. Asthana, Prof. Clive Tzuang, a recently elevated 2021 Life Fellow, launched the inaugural Taipei LMAG hybrid (in person and virtual) meeting on 6 May at the Graduate Institute of Communication Engineering (GICE), National Taiwan University. The meeting lasted one hour: the attendees included Powen Hsu, Rockson Huang, Dau-Chyrh Chang, Chiar Der Chang, Wen-Tsuen Chen, C. (Stone) Shih, Kwo Ray Chu, and Clive Tzuang. The formation of the Taipei LMAG was briefly described, followed by a discussion of potential LMAG activities.

The remaining first year (2021) tentative agenda was carried out except for the second all-member annual meeting scheduled in November, because of the COVID-19 Omicron pandemic.

The following 2021 Taipei LMAG activities were included:

- There were five technical reports submitted successfully, thanks to



The millimeter-wave demo lab setup.

the Vtools lessons offered by the secretarial office of the IEEE Taipei Section, Ruby Cheng.

- A survey of the 2021 LM activities that were eligible for reports to the IEEE was conducted in July/August. However, less than 10% of the eligible LM activities were reported. More efforts will be devoted to encouraging LMs to report their value with various technical Societies.
- Two LMs showed interest in applying for elevation to Senior Member grade.

- A planned LM clinical visit to experience the pulse measurement of the human meridian system was canceled for lack of participants.
- A search committee (in August–September) was formed to recommend a LM as a candidate for the Lifetime Achievement Award given by the IEEE Taipei Section. The recommendation materials were also based on interviews of the candidate’s colleagues.
- Efforts connecting LM activities with local industry began by cooperating with the MTT-S Taipei Chapter and local industries, in preparation for the Asia Pacific Microwave Conference, specifically, on workshops/focused sessions/technical presentations. Key contacts of the MTT-S members include Prof. J. Kuo and Prof. Peiling Chi.

Two photos shown here illustrate the nature of the meeting where IEEE AP-S and MTT-S members as well as LMs were invited to give comments and share their experiences on the 100 GHz over-the-air testing facility. The transmission and reflection measurements of a bottle of water were demonstrated. The meeting took place at Bwant, Co., Ltd, in Taipei with 11 attendees.

The announcement of millimeter-wave demo for the Taipei LMAG.

LMAG-Tokyo celebrates the 2021 LMAG Achievement Award

LMAG-Tokyo won the 2021 IEEE Life Members Affinity Group Achievement Award. The award was for the Affinity Group that performed the best record of activity in 2020 among all IEEE LMAGs. The award ceremony was held 10 December 2021, at Kikai-Shinko-Kaikan in Tokyo in a hybrid manner. There were 25 participants at the venue and 20 online. Dr. Yoshiaki Nakano, chair of the IEEE Tokyo Section, delivered some opening remarks and Scott Atkinson, chair, IEEE LMC introduced the award online, adding his congratulations. Dr. Toshio Fukuda, past IEEE president, presented a plaque to Dr. Hajime Imai, LMAG-Tokyo chair, and gave a congratulatory speech. Online guests Deepak Mathur, R10 director, and Rajendra Asthana, R10 LMC chair, also congratulated LMAG-Tokyo. After the ceremony, a celebration party was held. The warm messages from the attendees and the photos of LMAG-Tokyo activities displayed made it a pleasant and memorable event.

Tokyo Section LMAG

Lecture Meeting on “Challenges and Future Vision of the Electric Power System Toward Carbon Neutral and Resilience”

A lecture meeting focusing on the future vision of the electric power system was held online 6 August jointly sponsored by LMAG-Tokyo and the TPC of IEEE Tokyo section. The lecturer was Dr. Hiroshi Okamoto, member of the Board and Executive Vice President of TEPCO Power Grid, Inc. He talked about issues and challenges of current power companies, especially on carbon neutral and the electric power systems. There were 163 participants, including 83 IEEE Members.



Celebration by the Tokyo Section of the LMAG Achievement Award.

Dr. Okamoto started his talk with five “D’s” that represent evolution of the electric power companies. The first D is “deregulation” or “democratization.” Electric power companies so far covered generation, transmission, and distribution of electric power as a vertical integration. Now these structures are changed due to democratization. Then, the electric power network was unbundled to derive decentralization, digital transformation, decarbonation, and depopulation. In these situations, electric companies are trying to cooperate and merge with each other.

As the next subject toward carbon neutral, he explained the transformation of the demand–supply structure. There is a goal to decrease the usage of fossil fuel to be below 20% by 2050, and then toward zero. A problem is how to secure nonfossil fuel.

Issues for the electric system transformation were discussed. A main issue is the large distance between the places of the renewable energy generations and the consumers. The fluctuation of the renewable energy generation due to the weather condition is also important.

Finally, some trials in TEPCO were introduced, such as promotion and utilization of the distributed energy resources. Especially the EV would be spread hereafter, and it is

important how to store the electric energy, therefore the life cycle of electric cells should be a key issue. In the recycle management, legacy subjects such as how to process the used nuclear fuel, and how to collect and reuse the generated CO₂ gas are also big issues.

The overseas electric companies have positively developed Carbon Neutral and renewable energies and are spreading their business globally. TEPCO established Smart Resilience Network for contribution to the social environment. The future topics are mixing various energies, provisioning and efficient use of the grid, the management of electric power transmission and distribution, and their regulations.

After the talk, there were many questions, e.g., the capacity of the transmission power lines, the use of ammonia gas instead of hydrogen gas (they have to be imported), the geothermal power generation (although development is possible in hot spring areas, the cost is high), the biomass power generation (not sure whether it is carbon neutral or not?), the nuclear power generation (possibility of nuclear fusion and smart nuclear power generation) and so on. Dr. Okamoto politely and thoroughly answered every question. The participants enjoyed the discussions on the hot topics until the end. LM

IEEE Life Members Affinity Group Awards

The following awards are open for nominations with a deadline of 15 April 2022. For detailed nomination conditions, eligibility, and the nomination form, IEEE Life Members Affinity Group (LMAG)/individuals should get in touch with their Region coordinators.

IEEE Life Members Affinity Group Awards

Region Award

A Certificate of Recognition and a subsidy of US\$500 for future Affinity Group activities will be awarded to one LMAG in each Region to recognize those substantive initiatives, projects or achievements, that took place in the LMAG during the period of 1

January to 31 December of the preceding year. The award will be presented during a Region/Section level event.

Global Award

A Plaque of Recognition and a subsidy of US\$2,000 for future Affinity Group activities will be awarded to the outstanding Life Members Affinity Group and will be selected out of 10 regional awardees. Expenses may be paid to a representative for traveling to an appropriate event to receive the award. One award per Region and one global award among Region winners will be granted annually. However, awards may not be granted in a given year if no suitable nominations have been submitted.

IEEE Life Member Individual Service Awards

The IEEE Region Life Member Service Award

This award is presented annually to a Life Member for significant contributions and service in advancing IEEE regional initiatives, through excellence in sustained leadership after achieving Life Member status, during the period of 1 January to 31 December of the preceding year (Plaque of Recognition).

IEEE Life Member Distinguished Service Award

A global award, the IEEE Life Member Distinguished Service Award, will be given to the outstanding Life Member among the current regional awardees (Plaque of Recognition). **LM**

The history of electrotechnology continues to be one of the most popular interests of IEEE Life Members. Some of the recent activities are reported here.

Recent Books

Looking for a book to read? The IEEE William and Joyce Middleton Electrical Engineering History Award is awarded to the author of a book in the history of an IEEE-related technology that both exemplifies exceptional scholarship and reaches beyond academic communities toward a broad public audience. Here are some of the recent books that were chosen.

2019

Jimmy Soni and Rob Goodman, *A Mind at Play: How Claude Shannon Invented the Information Age* (Simon & Schuster).

2020

Lillian Hoddeson and Peter K. Garrett, *The Man Who Saw Tomorrow: The Life and Inventions of Stanford R. Ovshinsky* (MIT Press).

2021

Martin Collins, *A Telephone for the World: Iridium, Motorola, and the Making of a Global Age* (Johns Hopkins University Press).

History Activities

The full list of books chosen, and more information about the award, can be found at the following URL: www.ieee.org/about/history-center/middleton-award.html.

IEEE Milestones Update

The IEEE Milestones program honors significant technical achievements in all areas associated with IEEE. It is a program of the IEEE History Committee, administered through the IEEE History Center. In addition to the customary plaque, there will now be a QR code linking to an ETHW page (ethw.org) with further information about the subject of the milestone on or near the plaque.

Mining the Oral Histories Collected by the IEEE History Center

The collection of oral histories gathered by the IEEE History Center records personal accounts of some of the most celebrated events in the modern history of the electronics industry. Here are personal reminiscences of IEEE Members that chart the development of the most significant ideas and inventions on which modern life has become completely dependent. There are over 200 records, currently being supplemented by a new initiative sponsored by the Life Members Committee's (LMC's) Oral History project in which a group of 50 Life Fellows (LFs) are contributing their own stories. A good example, is the interview with Edward Ginzton, one

of the early pioneers in the launch of a new type of industry/university collaboration. He relates how he became involved in what is now known as Silicon Valley, in the San Francisco Bay Area. He credits Nobel Laureate Bill Shockley, co-inventor of the transistor, for the growth of the electronics industry on the site of a famous fruit-growing area in the Santa Clara Valley in California. Ginzton recalls that Shockley was known as "a difficult person to work for," with the result that several very talented engineers resigned from his company to found other start-up companies, such as Fairchild Semiconductor, and, in turn, Intel. The role of Stanford University, where Ginzton was a professor of electrical engineering, was also critical in attracting highly

creative and innovative scientists and engineers to migrate to the new companies and universities in Northern California.

Dipping into these oral histories is a very rewarding exercise, reminding readers of how the post-World War II electronics industry grew across the world, and the careers of the outstanding engineers and scientists who made it happen.

Follow the link to the oral histories at https://ethw.org/Oral-History/List_of_all_Oral_Histories.

Don't forget about the ongoing LMC project in which a group of 50 LFs will be asked to contribute their reminiscences. Volunteer interviewers are needed urgently! Contact Maxine Cohen (cohenm@nova.edu) for more information.

LM

News From the IEEE Foundation

Thanks for Your Support!

As we close out the first quarter of 2022, I want to take a moment to reflect on your generosity in 2021. As a member of the 2021 IEEE Life Members Committee (LMC), I was able to see the impact of your support first hand.

Thanks to the generosity of you and your fellow Life Members in 2021, countless lives around the world have been transformed for the better! This is all because Life Members, like you, took the simple action to make a donation in support of the IEEE Life Members Fund and IEEE Foundation. Whether you gave US\$1 (our smallest contribution) or any amount, you are an integral part of our success story.

It shouldn't surprise you that IEEE Life Members are the most

generous collection of Members within IEEE. In 2021, more than 4,400 Life Members donated to one or more of the IEEE Foundation Funds. This represents more than 11% of Life Members who donated. Cumulatively, IEEE Life Members gave more than all other membership groups combined! Being a part of this generous group makes me even more proud to be an IEEE Life Member.

The work of the IEEE LMC, which benefits IEEE Life Members around the world, is funded by donations to the IEEE Life Members Fund. In 2021, more than 3,800 donors gave more than US\$239,000 to support activities of interest to IEEE Life Members. If you are one of these donors, thank you for your support!

What have these donations enabled? The full impact is difficult to quantify, but here are a few specific examples:

- supported the activities of the LMC's 38,000 Members through 335 local IEEE volunteer groups. More than 600 Life Member Affinity Group activities were reported in 2021.
- launched the Life Fellows Oral History Project, the largest oral history project by the History Center. During 2021, 50 volunteers were trained and 152 subjects were identified. Almost 30 oral histories were recorded and eight have been published on the IEEE History Center's Engineering and Technology History Wiki (ETHW) at <https://ethw.org/>.

- awarded two fellowships—the IEEE Life Member History Fellowship and the IEEE Life Members Graduate Study Fellowship in Electrical Engineering.
- supported the IEEE James H. Mulligan Jr. Education Medal, which recognizes a career of outstanding contributions to education.
- provided funding to programs and events such as
 - IEEE-USA MOVE truck
 - IEEE Rising Stars Conference
 - IEEE Conference on Technologies for Sustainability (SusTech) student event
 - Student Engineering Team Challenge.

All of this is possible thanks to the support of IEEE Life Members like you. There are many ways you can contribute and allow this list to grow!

IEEE Membership Renewal

As you renew your IEEE Membership, you can select the IEEE Life Members Fund as an option on the drop-down menu. The LMC December 2021 newsletter included an envelope for mailing donations conveniently.

Online Donations (Including Recurring Giving)

Donating Online is one of the quickest and most effective ways of making a difference. Donations to the

IEEE Life Members Fund can be made via the IEEE Foundation secure online giving page: <https://www.ieeefoundation.org/lifemembers>.

Donor-Advised Funds

Once you have established a donor-advised fund (DAF) as your centralized charitable account, authorize a grant to the IEEE Life Members Fund. More information can be found on the IEEE Foundation website: <https://www.ieeefoundation.org/how-to-give/today/donor-advised-funds>

Individual Retirement Accounts

For U.S. citizens, the IRA Charitable Rollover allows individual retirement account holders age 70.5 and older to make qualified charitable distributions up to US\$100,000 per year (and up to US\$200,000 per year for married couples) from their IRA to the IEEE Foundation without having to count the transfers as income for federal tax purposes. Since no tax is incurred on the withdrawal, gifts do not qualify for an income tax charitable deduction, but are eligible to be counted toward an individual's minimum required distribution beginning at age 72. The IEEE Life Members Fund is eligible to receive these distributions.

Cash Prize Gifts

If you are receiving payment in exchange for a speaking engagement

or in recognition of an award, you may elect to donate your honorarium (cash prize or fee) to the IEEE Life Members Fund.

MOVE and Reach Programs Continue to Grow

The Foundation celebrated the IEEE-USA Mobile Outreach Vehicle (MOVE)'s fifth anniversary in 2021 by receiving a second vehicle, which was donated by Cisco Systems. The two trucks combined for four deployments spanning nearly 100 days assisting victims of natural disasters in Louisiana, Kentucky, North Carolina, and Tennessee, by providing short-term communications infrastructure, computer, and power solutions. There are plans to extend the program outside the United States going forward.

Social studies and STEM pre-university educators from around the world were equipped with the knowledge to leverage the free IEEE REACH lesson plans, videos and hands-on activities to elevate their students' technological literacy. More than 13,000 users from 160 countries accessed the REACH website during 2021, representing a 15% increase from 2020.

Sarah Rajala
Vice President for Development,
IEEE Foundation
sarah.rajala@gmail.com



2021 IEEE Donor Profile: Maxine Cohen

According to IEEE Life Member Maxine Cohen, Ph.D., Professor Emerita, College of Computing and Engineering at Nova Southeastern University in Fort Lauderdale, Florida, United States, “I grew up with IRE/IEEE magazines and journals in our house since my father was a quality control engineer, so for as long as I can remember, IEEE was part of my vocabulary.”

Bringing Support Full Circle

A former faculty member at The State University of New York at Binghamton, United States, Cohen joined the IEEE Computer Society in 1982, became an IEEE Life Member in 2018, and has been an active volunteer, serving on IEEE’s Senior Member Review Panels and as the Region 3 representative to the Admissions and Advancement Committee and preparing reviews for such IEEE publications as *IEEE Spectrum*, *IEEE Transactions on Edu-*



Maxine Cohen.

cation, and *IEEE Software*. “This year I joined the board of IEEE’s Society on Social Implications of Technology (SSIT) and was also appointed to the Publication and Presentation subcommittee of the IEEE Awards Board,” she said.

Cohen joined the Life Member Committee (LMC) in 2019, and, “since I no longer had to pay membership dues as a Life Member, I decided to allocate those funds (plus

a bit more) and joined the Heritage Circle,” she said of her recent donation to the LMC. “I liked how I could commit to a sizable donation but spread it out over time, and IEEE Foundation personnel were extremely helpful in facilitating everything, especially during the pandemic. Member donations to the LMC are very important and being actively involved in the LMC allows me to play a part in funding the scholarships, awards, and other interesting projects they support.”

“It’s good for Life Members to continue supporting the LMC or another facet of IEEE that has meaning to them,” concluded Cohen, who’s excited to help encourage more young girls to enter the STEM fields and to see IEEE’s dedication to supporting diversity and inclusion. “It feels good to give back to an organization that’s provided so much to me in my professional life.” LM

Region Coordinator Highlight

Region 2

Marc Apter is currently the Region 2 Life Member Coordinator. He received a B.S.E.E. degree in electronics from Pennsylvania State University in 1964. He served in the U.S. Navy for five years. He then worked in Arlington, Virginia, United States, for the Navy’s Naval Sea Systems Command (NAVSEA) for 11 years, where he was responsible for installation of systems on ships. In 1980, he transferred to the Chief of Naval Material for five years, developing policy,



Marc Apter.

auditing maintenance planning, and overseeing procurement and operations budgets.

He continued to work at NAVSEA for 15 more years; first managing its Metrology and Calibration Program; then managing its Maintenance and Configuration Management Program; and, finally, as the NAVSEA Command Information Systems security manager for more than 25 sites, and developing information assurance policy for over 60,000 government and contractor employees.

In 2000, he joined URS Corporation, in Dahlgren, Virginia, United States, where he was a senior information assurance specialist, developing security documentation for U.S.

Navy shipboard computer systems, until retiring in 2011.

Marc has numerous IEEE activities including being president of IEEE-USA in 2013,

Region 2 director from 2009 to 2015, and chair of the Northern Virginia Section in 1987–1988. He can be contacted at m.apter@ieee.org. **LM**

LMC Support for Education

The Life Members Committee (LMC) has supported educational activities in IEEE for many years, through its annual funding of scholarships and fellowships. There are also other sources of funding for both undergraduate and graduate student members that Life Members can influence by their membership of the IEEE Technical Societies and Councils. Life Member Affinity Groups can also encourage local companies and other organizations

to sponsor students or offer summer internships. Projects organized by Student Branches can be supported by grants from the Life Member Fund (LMF).

The Technical Activities (TA) Organizational Unit is the technical arm of IEEE. It delivers value to the global technical community through its 46 Societies and Councils, and its other technical communities. One particularly notable activity is the focus that TA has on the next gen-

eration of the engineering professional community. Many TA Societies and Councils provide scholarships and grants to undergraduate and post-undergraduate students worldwide. However, the numbers and descriptions of these scholarships and grants are not widely communicated beyond the communities of those Societies and Councils, but can be found on their respective websites. **LM**

Life Members on IEEE Collabratec Surpass 7,000

A few years ago, IEEE embarked upon the ambitious goal of bringing together its vast membership and subject matter expertise through a professional networking and collaboration platform, IEEE Collabratec. In the spirit of the organization's mission, advancing technology for humanity, Collabratec is open to anyone to join, while offering premium-level services to IEEE Members. As of January 2022, Collabratec's global network of technologists and engineers reached 266,000, of which 87,000 are IEEE Members. Life Members (LMs) on Collabratec reached the milestone of 7,000, about 25% of all IEEE LMs globally.

Collabratec offers a range of networking and collaboration services, including access to IEEE Section hubs and the IEEE Membership Directory. An IEEE Section hub provides a real-time snapshot of members and activities specific to each LM's geographic affiliation with IEEE. When LMs residing in Tokyo navigate to the IEEE Section hub, they will see a page that displays the member network and content from the IEEE Tokyo Section. LMs residing in New York, Bangalore, or Germany will see updates respective to their IEEE Sections. IEEE offers similar hubs for Student Members, compiling activities

and updates respective to their IEEE university branches.

The IEEE Membership Directory is the most current directory of IEEE Members. Participation in the directory is managed on an opt-in basis, i.e., Members won't be listed in the directory unless they choose to participate. As of February 2022, about 25,000 of IEEE's 36,000 LMs participate in the membership directory. Profile pages on Collabratec clearly identify IEEE Members from non-Members. IEEE Members have badges representing their current membership grade, along with listings for their affiliations with IEEE's technical Societies and

communities. All profiles are automatically updated when Members are elevated to LM status.

In 2022, LM activity and participation on Collabratec is anticipated to accelerate. Planning for a new

online community called, “IEEE LMs & Friends” will officially launch in May, with a community preview available sooner for those LMs already on Collabratec. We are very excited about this new opportunity

to convene LMs in a way unprecedented in the organization’s history. From one platform, four generations of IEEE Members are becoming more accessible to each other from any location in the world. **LM**

Remembering David John Kemp and Michel E. Poloujadoff

With great sadness, we remember two outstanding volunteers for their work of behalf of the global Life Member community.

David John Kemp



David John Kemp (1944–2022) died on 5 January 2022. He was an IEEE volunteer for 59 years, serving as IEEE Canada president, Region 7 director, and IEEE secretary. He was a Life Senior Member of IEEE and a fellow of the Engineering

Institute of Canada. He will be remembered for his valuable contributions to IEEE on numerous committees. Above all, he will be remembered as a true gentleman, friendly, generous with his time, and always willing to help in IEEE and his local community. More details are available on the IEEE Canada website.

Michel E. Poloujadoff

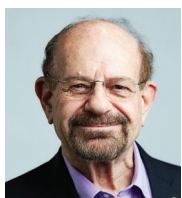
Michel E. Poloujadoff, Life Fellow of IEEE, died at the age of 89 on 13 December 2021. He founded and was the first chair of the France



Section IEEE Life Members Affinity Group in 2004 and achieved great distinction receiving the prestigious Nikola Tesla Award in 1991 and the IEEE Lamme Medal in 1994. He was also a Distinguished Lecturer for the IEEE Power & Energy Society and IEEE Industry Applications Society. A full report on his outstanding academic achievements can be found on the IEEE France Section website. **LM**

Introducing the New 2022 LMC Members

Howard Wolfman



Born in Chicago, Illinois, United States, I have resided in the Chicago area my entire life. During my over 60 years of active IEEE membership, I have had the opportunity and pleasure to serve in numerous leadership positions in IEEE including Region 4 director, IEEE treasurer, member of the Standards Board, Education Activities Board, Awards Board,

Chicago Section chair, and over 20 IEEE committees.

For the last 20 years, I have been an adjunct professor in the Master of Engineering Program at the University of Illinois at Chicago, made numerous conference presentations, and authored many papers. During my career, I have received the IEEE Centennial Medal, the IEEE Third Millennium Medal, the IEEE Standards Association Lifetime Achievement Award in Standards, the 2008 NEMA Kite and Key Award, the

2013 CSA Award of Merit, the Edison Report Lifetime Achievement award in Lighting Standards, and Eagle Scout.

My education includes a B.S.E.E. degree from the University of Illinois and an M.B.A. degree from Northwestern University. I am also a registered Professional Engineer in Illinois. After leading engineering, manufacturing, and marketing functions in diverse product areas for years, for the last 13 years I have been the principal of Lumispec

Consulting, specializing in lighting energy efficiency, and have provided consulting services to many organizations and corporations. In my spare time and in addition to spending time with my wife, my three children and their spouses, and five grandchildren, I serve as the chair of the Board of Trustees of a municipal sanitary district and am one of the top 200 fund raisers for the Illinois Chapter of the Multiple Sclerosis Society.

Rajendra Kumar Asthana



I am the chair of the Region 10 Life Member Committee. I've held numerous positions in Region 10, the

IEEE India Council, the IEEE Delhi Section, and Member and Geographic Activities (MGA). I received the MGA Achievement Award in 2021 and the India Council Lifetime Achievement Award in 2019. I am currently the chair of the LMC Awards and Recognition Committee.

Tariq Durrani



I am a research professor at the University of Strathclyde, Glasgow, Scotland. I was the 2006–2007 president of the IEEE Engineering Management Society, the 1994–1995 president of the IEEE Signal Processing Society, and the vice president

of the IEEE Educational Activities Board in 2010–2011.

Howard Michel



I was the 2015 IEEE president and served as the vice president for Member and Geographic Activities in 2009–2010. I was the Region 1 director 2008–2009 and have held various positions in the Providence, Rhode Island Section. I am currently an IEEE Foundation director.

LM

TALES FROM THE VAULT

Three Generations of IEEE Members

I had the privilege of being a second-generation electronics engineer and IEEE Member. My father Larry is an inactive Life Member. My son Mike joined IEEE on his own in the last five years.

Laurence DeCuir

Larry grew up in Sacramento, California. He became interested in electronics in high school and built a tube-based radio. After high school, he attended junior college and then transferred to UC Berkeley.

In 1943, Larry enlisted in the U.S. Army Air Corps and trained in radio and radar systems. He set up a radar station in Puerto Rico and then joined the Manhattan Project, working on ignition test systems for plutonium bombs. After Larry finished military service, he returned to



From left: Michael Decuir (Member), Joseph Decuir (Life Fellow), and Laurence DeCuir (inactive Life Member).

Berkeley. He joined IEEE in the summer of 1947; his motivation was to keep learning, and meet other engineers.

Larry graduated in 1948 and started at Western Union, working on switching equipment. Larry had a series of engineering jobs in

Southern California, including Hughes Aircraft, Litton Industries, Radioplane, Systems Development Corporation, and McDonnell Douglas. He spent decades on the satellite tracking networks, working on hardware to support software engineers.

Joseph Decuir

Joe learned electronics bench equipment as a teenager. He read Larry's *Aviation Week* and *IEEE Spectrum* magazines. In 1968, he started at UC Berkeley, finishing with a B.S. degree in electrical engineering and computer sciences, and an M.S. degree in biomedical engineering. He joined IEEE in the summer of 1971.

Joe's first jobs were in medical equipment and medical research. In 1975, he started at Atari working on the Video Computer System (2600), and its sequel, the Personal Computer System. In 1978 he read about the French Minitel system in *IEEE Spectrum*; he recognized it as a national prototype for the Internet. He left Atari to start his first company, Standard Technologies, to pave the Internet. While at STC, he helped design a third animation system at Amiga. STC became Teledesign, then Everex. He helped incorporate Internet support into the Microsoft Windows operating systems.

Joe finished his industrial career working on USB and on Bluetooth. Now he teaches engineering at the University of Washington. His motivation? To train the people he would like to hire. Joe was elevated to Fellow in 2015 for contributions

to personal computer graphics and video games.

Michael Decuir

Mike moved with his family to Washington State in 1993. His interests ran to chemistry and biochemistry, earning B.S. degrees from the University of Washington in 2006. His first job coming out of university was doing bioanalytical chemistry research. In his next job as a lab tech, he discovered that he was far more passionate about data and analytics than the specific subject matter, which began his shift toward software engineering by way of database administration and data science. He currently works at AdaptX, where he works on the back-end systems of tools to bring adaptive process management directly into the hands of clinicians.

Mike joined IEEE because they attract and disseminate new information about data science.

Conclusion

Larry said "Find out where your heart is, and find a way to get paid for it." Larry, Joe, and Mike all worked in branches of electronics and computers, and joined a professional society to continue learning and networking.

*Joseph Decuir, LF
Issaquah, Washington*

We Want Your Feedback!

One of the most popular items published in *IEEE Life Members Newsletter* has been "Tales From the Vault," a collection of short pieces submitted by Life Members (LMs), recalling significant events from their career in electrotechnology. Usually, it has been possible to publish only a limited number of "Tales," where the staff editor chooses a few for each issue of the newsletter based on available space.

In the future, it is proposed that only one story will be published for each issue, and the rest would be archived, but readily accessible to readers. We would like your feedback to guide us on this proposal; send an email to charles.turner@kcl.ac.uk. We also strongly encourage readers to continue to send us more tales, from which we can select interesting examples, especially those with broad appeal, for publication in the newsletter. Incidentally, relatively few tales are submitted from Regions 7–10, even though there are many LMs residing there.

The tale selected for this issue is surely unique in IEEE history.

LM

2022 Region Coordinators

The 2022 Region coordinators are as follows:

- R1–Daniel Sniezek
- R2–Marc Apter
- R3–Claude Pitts
- R4–Larry Kotewa
- R5–Kai Wong
- R6–Mike Andrews, WISE
- R7–Terry Branch
- R8–Peter Magyar

- R9 –Gustavo N. Chavez
- R10 –Rajendra Asthana

Contacts

- IEEE Foundation 50th Anniversary–Ed Rezek
- Finance–John Impagliazzo
- Branding and Communication–Ralph Wyndrum/John Day (staff)

- Ad Hoc Projects and WISE–Mike Andrews
- Recognition and Awards–Rajendra Asthana /Tariq Durrani
- Newsletter–Charles Turner
- LMAG Activities–David Bondurant
- Life Member Senior Upgrades–Marc Apter
- History Activities–Maxine Cohen

IEEE

445 Hoes Lane, Piscataway, NJ 08854 USA

Publication of *IEEE Life Members Newsletter*

IEEE Life Members Newsletter will be published electronically in April and August, and in a print version in December. Along with past issues the current issue will also be posted on the MGA website.

Our Mailing List

IEEE Life Members Newsletter is distributed to Life Members and those who are not Life Members but are 1) IEEE Members 65 years and older, 2) retired IEEE Members aged 62–64, and 3) members of special boards and committees.

Submitting Articles

We welcome articles for this newsletter. In particular, we seek articles about projects that are initiated at the Section and Region level by Life Members as well as “Tales From the Vault,” which should focus on novel or interesting technical issues. The suggested length for “Tales From the Vault” submissions is 500 words.

Acronyms should be completely identified once. Reference dates (years) also should be included. Any images that are submitted along with articles must include captions and be high resolution (at least 300 dpi) to be considered for publication. Editing, including for length, may occur. If you wish to discuss a story idea, please contact lm-newsletter@ieee.org. The deadline to submit an article for possible inclusion in the next issue is 1 July 2022. Please include your Life grade, city, state, country, phone number, Member number, and an email address with your article.

Stopping IEEE Services

Life Members who no longer wish to receive mailings or publications should contact the IEEE Contact Center. If you are doing so on behalf of another Life Member, please submit the Member’s name, number, grade, address, change date, and your connection (e.g., Section chair) to the Contact Center.

Qualifying for Life Member Status

To qualify as a Life Member, an IEEE Member must be at least 65 years old, and the sum of the member’s age and the number of years of paid membership effective the following January must equal or exceed 100 years.

Have Questions, Ideas, or Concerns?

Have questions regarding your Life Member status? Reach out to the IEEE Contact Center for assistance. Have something else you need to ask or discuss? Email the Life Members Committee or its staff at life-members@ieee.org.

IEEE Contact Center

IEEE Contact Center employees are ready to assist you 24/5, from Sunday 4:30 p.m. ET to Friday 4:30 p.m. ET

or

email: contactcenter@ieee.org

phone: +1 800 678 4333 (USA and Canada)

+1 732 981 0060 (worldwide)

fax: +1 732 562 6380

IEEE prohibits discrimination, harassment, and bullying. For more information, visit <https://www.ieee.org/about/corporate/governance/p9-26.html>



2022 COMMITTEE

Howard Wolfman

h.wolfman@ieee.org

David Bondurant

dbondurant@mac.com

Maxine Cohen

cohenm@nova.edu

John Impagliazzo

john.impagliazzo@hofstra.edu

Tariq Durrani

t.durrani@strath.ac.uk

Howard Michel

h.michel@ieee.org

Edward Rezek

e.rezek@ieee.org

Ralph Wyndrum

r.wyndrum@ieee.org

Cecelia Jankowski

Secretary (staff)

c.jankowski@ieee.org

John Day

Director, Member Products and Programs (staff)

j.day@ieee.org

Jessica Welsh

Managing Editor (staff)

j.welsh@ieee.org