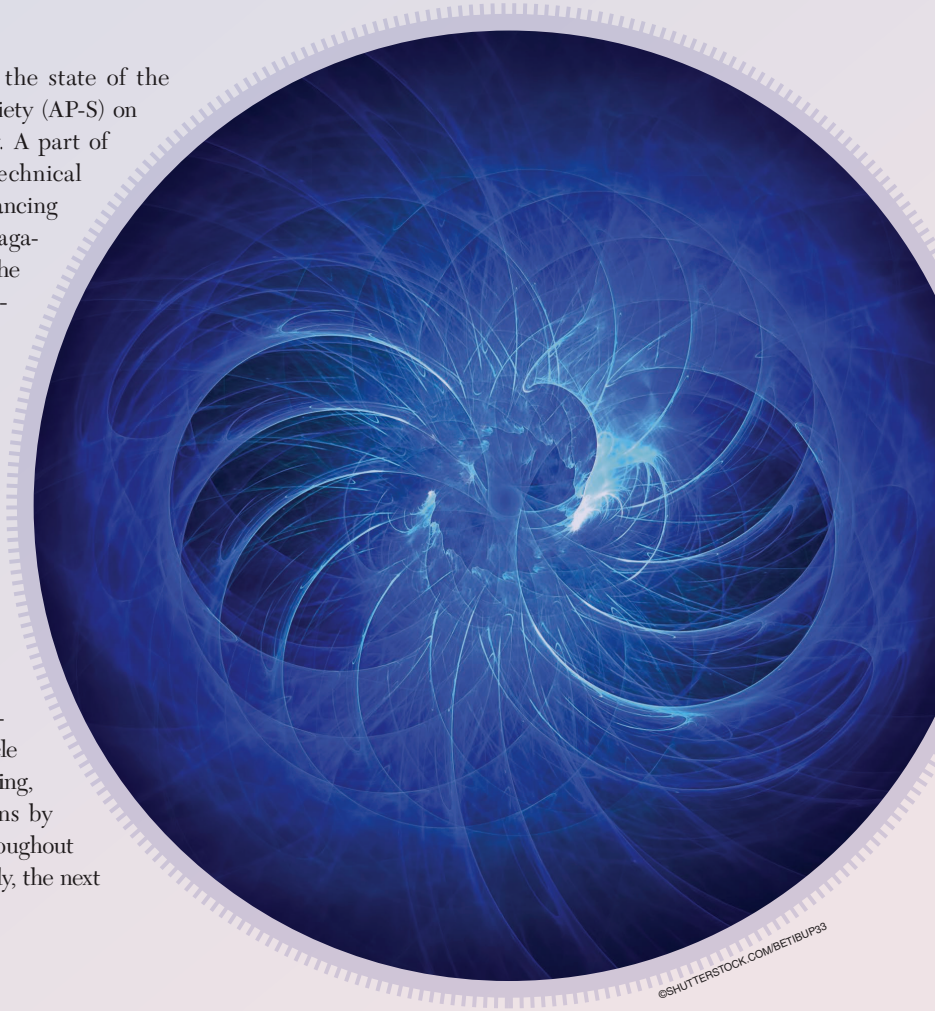
Branislav M. Notaroš

State of the IEEE Antennas and Propagation Society

An overview of operation, activities, accomplishments, and impacts.

This article presents an overview of the state of the IEEE Antennas and Propagation Society (AP-S) on the occasion of its 75th Anniversary. A part of IEEE, AP-S is the world's largest technical professional organization dedicated to advancing the theory and practice of antennas, propagation, and electromagnetics technology for the benefit of humanity and fulfilling the technical and professional goals of its worldwide membership and the AP community and profession at large. The article is aimed at providing a high-level, comprehensive, and self-contained outline of the operation and governance, technical and professional activities, goals, and accomplishments of the Society and all of its volunteers and members. It is hoped that Magazine readers and AP-S members will find the overview useful, illustrative, informative, and interesting, as well as that the article offers an archival picture of the Society at a very special celebratory time in its history. The article shows that the state of AP-S is truly outstanding, thanks to incredible work and contributions by AP-S leaders, volunteers, and members throughout our history of 75 years. Even more importantly, the next



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75 years of AP and AP-S are guaranteed to be equally rich, fascinating, and intense!

This article presents an overview of the state of AP-S on the occasion of the 75th Anniversary of the Society.

INTRODUCTION

Antenna, RF, wireless, and other electromagnetics-related technologies are exploding! What makes our world technologically so different from previous eras exactly is—radiation, propagation, and reception of electromagnetic waves—connecting everyone, and everything in real time; enabling new electrical and electronics concepts, devices, and systems for all industries, sectors, and services; and immediately advancing such a broad spectrum of application areas as communication, security, defense, medicine, transportation, manufacturing, and computing, among many others.

A part of IEEE, AP-S is the world's largest technical professional organization dedicated to advancing the theory and practice of antennas, propagation, and electromagnetics technology for the benefit of humanity and fulfilling the technical and professional goals of its worldwide membership and the AP community and profession at large.

This year is a special celebratory year for AP-S as we are celebrating the 75th Anniversary of the Society. We were founded in 1949 as the third oldest IEEE Society (or professional group as the Societies were called then), the IRE Professional Group on Antennas and Propagation—our first official name. Hence, in the nomenclature of all IEEE Societies, our official IEEE designation is AP-03. In 1973, we became the IEEE Antennas and Propagation Society—our current name, and what is remarkable is that we kept the same technical name (AP) during our entire history of 75 years.

This article presents an overview of the state of AP-S on the occasion of the 75th Anniversary of the Society. It aims to outline the operation, activities, goals, and accomplishments of the Society, that is, of its volunteers and members, within one high-level, comprehensive, and self-contained document. Ideally, this document might have some archival value as the picture of the Society at one time in its history, a very special celebratory time, in addition to hopefully being of current interest for the readers and Society volunteers and members. Furthermore, it is likely that many of our readers and members are not aware of some of the important specifics of the Society operation and governance, technical activities and directions, membership and geographic activities, education and training, publications, conferences, and digital communications—presented in the article and that they will want to know some of this. Plus, it is good to have all of it in one place.

However, given the complexity of the Society structure and operation as well as the wealth and diversity of the activities and achievements of hundreds of AP-S leaders and volunteers and thousands of AP-S members and AP researchers, practitioners, and students, this overview is only meant to be representative, illustrative, informative, and interesting and is by no means complete or exhaustive.

SOCIETY PAST, PRESENT, AND FUTURE

Of course, it all started with Maxwell's equations 150 years ago [1], sparking phenomenal AP inventions and realizations throughout the remainder of the 19th century and up to the present [2], and half of that history was with AP-S as one of the leaders in the field [3], [4]. Figure 1 shows some pre-AP-S history of AP [2], [5], [6], [7], including, for example, the first realized antenna and the first demonstrated AP system by Heinrich Hertz in 1887, the first practical (trans-Atlantic) AP radio link by Guglielmo Marconi in 1901, and the huge expansion of AP and radar research and development during and around World War II, as well as some subsequent AP-S research highlights.

The state of our Society is truly outstanding. Our approaches and activities are often very innovative, and our accomplishments and impacts are highly regarded and acknowledged both by our members and by our sister Societies and organizations as well as IEEE and the engineering/scientific community at large [17], [18]. We started with 509 members in 1949 (Figure 1), and Figure 2 provides some numbers, parameters, and graphical inputs demonstrating our main activities and achievements as they stand today. These are detailed further in the following sections of the article.

However, even more important than the extraordinary history and the laudable present is the unparalleled potential that the AP and AP-S promise for the future. Electromagnetic fields and waves are here to stay and to be used in all aspects of the work and life of the humanity of the future, the wireless world will just become more and more wireless, and the needs for antennas and antenna systems as the eyes, ears, voice, and brain and propagation as the means for action at a distance of communication, security, defense, medical, transportation, computing, and industrial devices and systems of next generations of technology will multiply like never before. With such a bright future for AP, the future of AP-S is equally bright as the need and impacts of professionally organizing will multiply the same, to be able to join forces to tackle the demands of the next generations of AP and interdisciplinary technologies.

SOCIETY OPERATION AND GOVERNANCE

The Society is governed by the Administrative Committee (AdCom). The AdCom is composed of 18 voting members, namely, the Society President, President Elect, 12 elected members, and four most recent Past Presidents. Figure 3 shows the current voting AdCom Members. The terms of the AdCom Members are for three years, with four members elected each year and two consecutive full terms being permitted [19], [20], [21]. Candidates for President Elect must be current or past elected members of the AdCom. The President and President

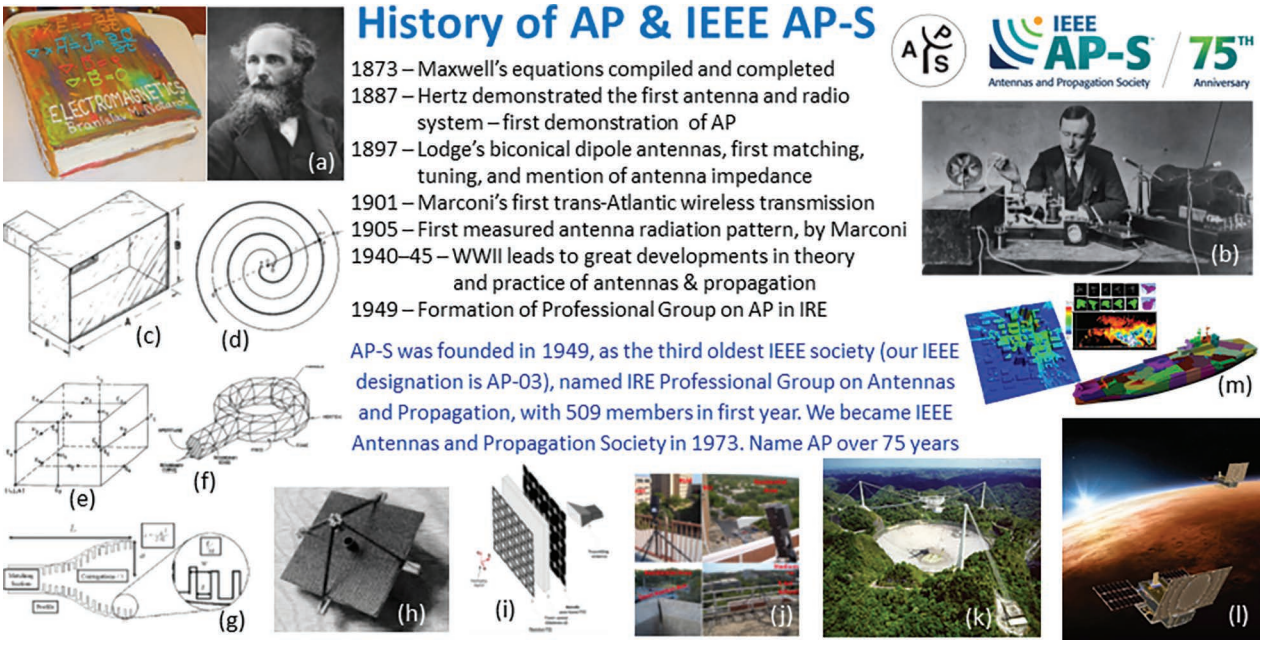

FIGURE 1. Some milestones of the pre-AP-S history of the AP and some examples of subsequent AP-S research [2], [5], [6], [7]. (a) James Clerk Maxwell (1831–1879). (Source: AIP Emilio Segré Visual Archives.) [5] (b) Guglielmo Marconi (1874–1937). (Source: Clifden and Connemara Heritage Society.)[8] (c) A reflex-cavity antenna [9]. (d) A circular Archimedean two-wire spiral antenna [10]. (e) Yee cell for finite-difference time-domain AP computation [11]. (f) A triangular mesh with method of moments RWG basis functions [12]. (g) Particle swarm optimization of a corrugated horn antenna [13]. (h) A 77-GHz reflectarray with a Cassegrain feed [14]. (i) A frequency-selective antenna-radome with wideband-absorbing properties [15]. (j) Broadband millimeter-wave propagation measurements using adaptive-beam antennas for outdoor urban cellular communications [16]. (k) Arecibo single-dish radio telescope. (Source: NAIC Arecibo Observatory, NSF). (l) Mars Cube One CubeSats. (Source: NASA.). (m) Examples of computational electromagnetics applied to AP (Source: Courtesy of Zhen Peng and Branislav Notaroš.)

FIGURE 2. A quick graphical overview of the activities, accomplishments, and impacts of IEEE AP-S.

Elect serve one-year terms, with the President Elect taking over as President the following year. The Society Officers are President, President Elect, Secretary, and Treasurer (see Figure 3 and the top-right panel of Figure 4).

Very importantly, the President Elect and all AdCom Members are elected by the entire Society membership. This is pretty unique within IEEE, and the highly democratic election policies and procedures in our Society are praised by others. In most other IEEE Societies and Councils, the President Elect and new AdCom Members, or almost all of them, are appointed, that is, elected by the AdCom and not by the Society/Council membership. Furthermore, the geographic

FIGURE 3. The voting Members of the IEEE AP-S Administrative Committee (AdCom), including the Society President and President Elect (the first column of the photo panel) and four most recent Past Presidents (the next two columns). The last two columns are the four AdCom Members elected last year.

FIGURE 4. The Chairs of the AP-S Standing Committees; Society Officers; and Editors in Chief (EICs) of AP-S publications. Together with voting AdCom Members (Figure 3), they constitute the AP-S AdCom at Large.

diversity of our AdCom is quite remarkable, where the candidates for the President Elect and AdCom Members alternate annually between different IEEE Regions (for a map of IEEE Regions, see Figure 8 later). Indeed, our AdCom's geographic diversity, as well as gender diversity, where 40% of voting AdCom Members are women, are likely the highest within the entire IEEE.

For the election of the President Elect, the procedure requires that in even years, candidates must be from IEEE Regions 1–6, whereas for the elections in odd years, candidates must come from Regions 7–10 [20], [21]. In addition to the four Past Presidents, the AdCom consists of eight members from Regions 1–8, one member from Region 9, and three members from Region 10. To maintain this composition, no more than three members from Regions 1–8 and no more than one member from Region 10 are elected in the first year of a three-year cycle. In the second year, these numbers are two from Regions 1–8, one from Region 9, and one from Region 10 and then three from Regions 1–8 and one from Region 10 in the third and final year of the cycle [20], [21].

The Society's business and operation are managed by 20 AP-S Standing Committees [20], [21], working together with Society Officers, the AdCom, and all of the Society volunteers, members, and friends (future members)—the ones that conduct all the activities within the Society and its scope. The Committees are tentatively grouped around Technical Activities; Professional Activities; and Operations and Finance. Figure 4 shows the current Chairs of AP-S Standing Committees. Additionally, we have 25 AP-S Society Representatives, who represent AP-S and the goals and interests of our members in our collaboration and interaction with various other IEEE Societies and Councils as well as non-IEEE organizations and institutions.

The following AP-S Standing Committees can broadly be classified under Technical Activities: the Technical Directions Committee; Publications Committee; Meetings Committee; Industrial Initiatives and Listings Committee; Standards Committee; Distinguished Lecturers Program Committee; History Committee; IEEE Press Liaison Committee; Awards Committee; and Fellow Evaluations Committee (FEC). Professional Activities are primarily managed by the Membership and Benefits Committee; Chapter Activities Committee; Member and Geographic Activities (MGA) Committee; Education Committee; Special Interest Group on Humanitarian Technology (SIGHT) Committee; Committee on Promoting Equality (COPE); Young Professionals (YP) Committee; and Diversity Equity, Inclusion, and Belonging (DEIB) Committee. Operations and Finance include the Constitution and Bylaws Committee; Strategic Planning Committee; Finance Committee; Large Initiative Assessment (LIA) Committee; Nominations Committee; and Past Presidents Council.

Nominations and appointments of all Society Officers, Chairs and Members of AP-S Standing Committees, and Society Representatives are conducted at the start of each year. By our rules, the names for all these positions are proposed by the President and then discussed and approved by the AdCom [21]. This year, we had a total of 354 volunteers as candidates in this voting [22].

All Society Officers, Standing Committee Chairs, and Editors in Chief (EICs) of our publications (shown in the bottom-right panel of Figure 4) are ex-officio members of the AdCom, and they, together with voting AdCom Members, constitute the AP-S AdCom at Large [20]. All proposals, motions, and topics are always presented to and discussed by the entire AdCom at Large, and then the decisions are made by the votes of voting AdCom Members. The only exceptions are sensitive topics and those of a personal nature, like consideration of names for various appointments and selections, which are presented, discussed, and decisioned in an executive (closed) session by voting AdCom Members only.

FIGURE 5. The AP-S AdCom at Large Members during the 17–18 February 2024 AdCom meeting, in Orlando, Florida, USA [22].

FIGURE 6. The AP-S 75 Years Celebration during the IEEE Technical Activities Board (TAB) Meeting on 16 February 2024 in Orlando, Florida, USA, with 12 AP-S leaders onstage and more than 200 IEEE leaders and Society/Council Presidents attending. They were truly impressed by the accomplishments of the AP-S, and the celebration culminated with a standing ovation congratulating us on the fantastic 75 years and "Happy Birthday to You" song [22].

Regular AdCom meetings are typically scheduled three times throughout the year, with the summer one always being held in conjunction with our flagship summer APS/URSI Conferences. Figure 5 shows AP-S AdCom at Large Members during our first meeting of the year, on 17–18 February 2024, in Orlando, Florida, USA [22]. Some of the members are also shown in Figure 6 onstage during the AP-S 75 Years Celebration of the IEEE Technical Activities Board (TAB) on 16 February 2024 in Orlando [22].

Finally, note that AP-S is currently carrying out a number of fundamental forward-looking changes for the Society, aimed at advancing its structure and operation [22].

TECHNICAL ACTIVITIES AND DIRECTIONS

AP Society's field of interest includes the theory, analysis, computation, measurement, design, development, testing, and standards in electromagnetics, antennas, and propagation in the broadest possible sense [19], [20]. Figure 7 depicts the AP-S technical areas and topics sorted and graphically represented two-dimensionally: 1) thematically from electromagnetics

through propagation to antennas and 2) from theory through applications to systems, starting from theoretical and methodological breakthroughs, which are used and further advanced in high-tech engineering applications, which are integrated into technological systems and interdisciplinary solutions, with each level bringing outstanding challenges and opportunities for innovation and impacts and each level featuring fundamental research, practical development, comprehensive implementations, and rigorous testing.

All the activities of AP-S volunteers, members, and friends are centered around these technical areas and topics, and our technical activities, along with the professional ones, are what make us the IEEE Antennas and Propagation Society. All our publications, conferences, and committees are steered technically and scientifically by the field of interest and the scope of AP-S. In terms of the Society's operation, our technical activities are managed by a number of AP-S Standing Committees broadly classified under Technical Activities in the previous section. Finally, as our scientific and technological world is becoming increasingly interdisciplinary and multifaceted, our technical activities and directions are becoming ever more interrelated and interdependent with those of other IEEE Societies and Councils, which opens novel exciting avenues for AP research and practice and for the technical and professional actions, pursuits, and impacts of AP-S as well as for intersocietal collaborations.

We have an extremely active Distinguished Lecturer (DL) Program, featuring 15 outstanding DLs for this year. They are touring AP-S Chapters all over the world and giving their Distinguished Lectures at universities, companies, and government laboratories. In addition, we have established joint DL Programs with our sister Societies. This year, the AP-S DL Program Committee is organizing several Joint DL Days in Europe, Africa, and Asia. The AP-S YP Committee has recently created a unique YP Ambassadors Program, similar to the DL Program, except that the speakers are YPs.

Every year, the Society is granting a number of AP-S Field Awards to its most deserving members, including the Distinguished Achievement Award; Chen-To Tai Distinguished Educator Award; John Kraus Antenna Award; Lot Shafai Mid-Career Distinguished Achievement Award; Donald G. Dudley Jr. Undergraduate Teaching Award; Harrington-Mittra Award on Computational Electromagnetics; Distinguished Industry Leader Award; and Industrial Innovation Award [21].

We are also giving AP-S Paper Awards for the best articles of the year in our journals (see Figure 11 later), which include the S. A. Schelkunoff Transactions Prize Paper Award (for the best article published in *IEEE Transactions on Antennas and Propagation*); H. A. Wheeler Applications Prize Paper Award (for the best applications article published in *AP Transactions*); R.W.P. King Award (for the best article by an author under the age of 36 published in the Transactions); Piergiorgio L.E. Uslenghi Letters Prize Paper Award (for the best article published in *IEEE Antennas and Wireless Propagation Letters*); and Edward E. Altshuler Prize Paper Award (for the best contribution published in *IEEE Antennas and Propagation Magazine*) [21]. All awards are presented at an AP-S Awards Ceremony during our flagship summer conference [23].

Each year, a number of highly qualified AP-S members with technical contributions that raise them significantly above the norm—in one of the five categories of Technology Innovator, Educator, Research Engineer/Scientist, Standards Contributor, or Technical Leader—are elevated to the highest IEEE grade of IEEE Fellow. The AP-S FEC pushes a number of high-quality nominations up to the IEEE FEC, which makes the final selections and recommendations to the IEEE Board of Directors for their confirmation. The presentation is again at a summer AP-S Awards Ceremony.

Finally, it is worth noting that while the membership and geographic activities of IEEE are organized through 10 IEEE Regions, its technical activities are run through IEEE Societies and Councils organized in 10 IEEE Divisions. AP-S is part of IEEE Division IV, together with the IEEE Microwave Theory and Technology Society (MTT-S), Electromagnetic Compatibility Society, and six other Societies and Councils.

MEMBERSHIP AND GEOGRAPHIC ACTIVITIES

As of 8 February 2024, AP-S had 10,675 members, organized in 233 Chapters all over the world. Figure 8 shows the membership distribution through the 10 IEEE Regions as well as the distributions by grade (e.g., IEEE Fellows, Senior Members, Members, Student Members, etc.) and gender. Shown in Figure 9 is the distribution of AP-S Chapters across the IEEE Regions, which also includes classifications between solely AP-S Chapters, joint AP-S Chapters with other IEEE Societies, most frequently with the MTT-S, and Student Branch Chapters.

Our membership-related activities and endeavors are led synergistically by eight AP-S Standing Committees broadly

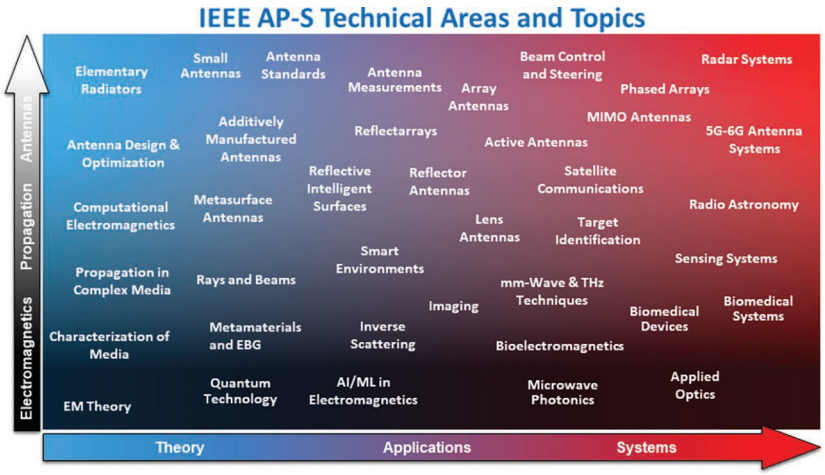

FIGURE 7. A 2D graphical representation of AP-S technical areas and topics, within the Society's field of interest.

classified under Professional Activities in the "Society Operation and Governance" section, with impressive accomplishments. Our current goals are to further increase worldwide IEEE and AP-S membership as rapidly as possible; enhance outreach to IEEE Regions or parts of Regions that are historically and currently underrepresented in AP-S activities; proactively recruit new students into the field and into AP-S and enhance their active involvement; continue efforts to improve the gender, status-based, and geographic diversity of AP-S participation; and make being or becoming an AP-S member or student member even more beneficial and rewarding [18].

EDUCATION AND TRAINING

AP-S provides outstanding opportunities for the technical and professional advancements of students, YPs, and other members. Together with our sister Societies and organizations, we act as stewards of electromagnetics research, development, and education.

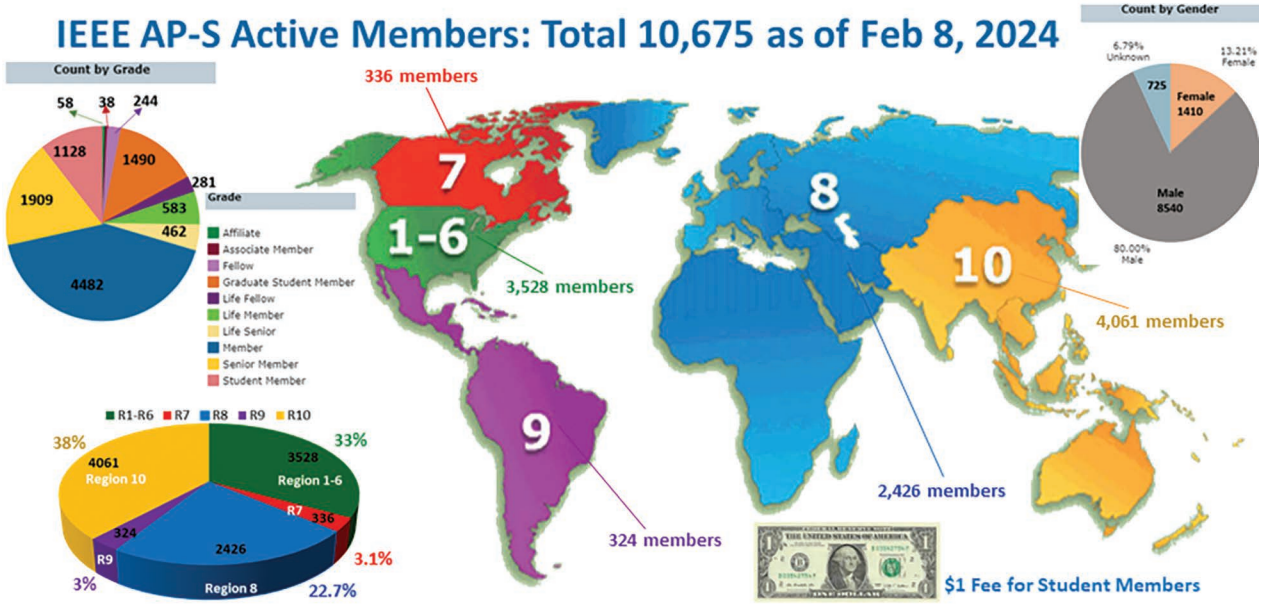

FIGURE 8. AP-S membership distribution through the 10 IEEE Regions. Also shown are the distributions of AP-S members by grade (e.g., IEEE Fellows, Senior Members, Members, Student Members, etc.) and gender. AP-S features a discounted membership annual fee of US$1 for students.

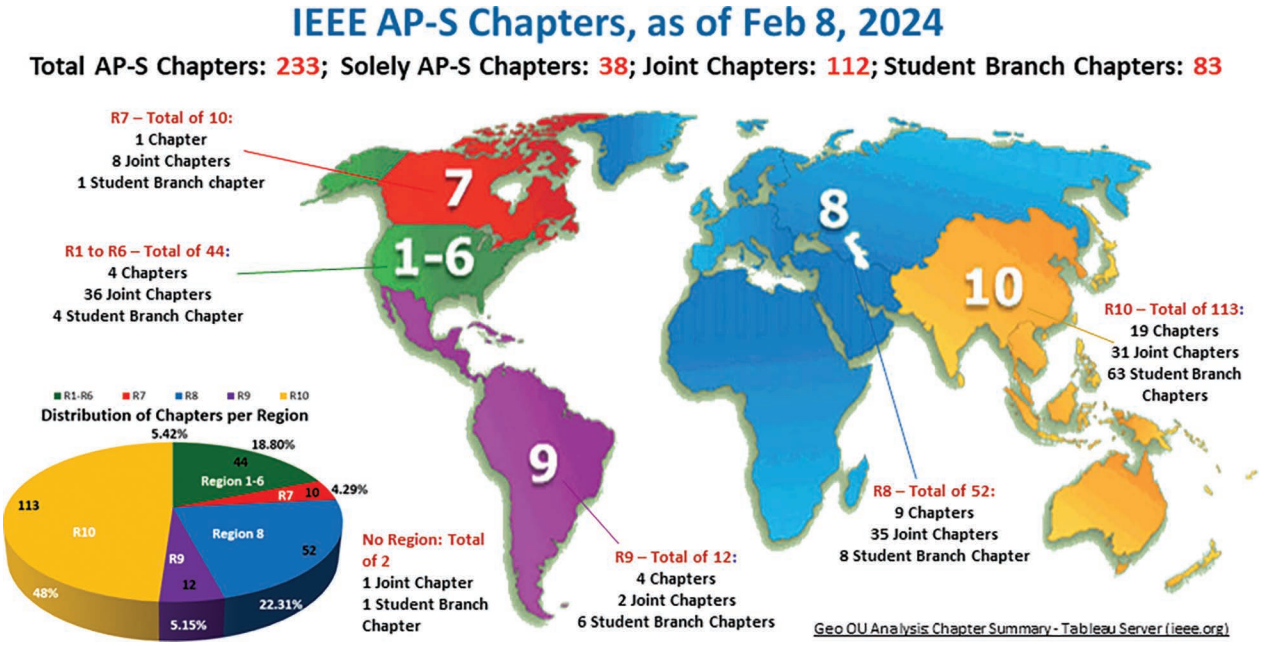

FIGURE 9. The distribution of AP-S Chapters across the IEEE Regions. Our 233 Chapters consist of solely AP-S Chapters, joint AP-S Chapters with other IEEE Societies (most frequently with the MTT-S), and Student Branch Chapters.

The Education Committee and several other committees within the Professional Activities group (see the "Society Operation and Governance" section) are constantly designing and implementing new initiatives to push for AP and electromagnetics education and training at all levels. This is in addition to our well established and very successful regular activities, such as the AP-S Student Paper Competition (SPC), AP-S Student Design Contest (SDC), and Students and Young Professionals Networking Event organized annually for our flagship APS/URSI Conferences [23]; and the curation of the AP-S Resource Center, with teaching materials on electromagnetics, antennas, propagation, and applications, educational videos, and video recordings of plenary and special sessions at APS/URSI Conferences and AP-S Distinguished Lectures, etc.

We provide hundreds of research grants, scholarships, fellowships, and travel grants to students every year, along with other educational and professional development opportunities for students and all members, as shown in Figure 10. AP-S is one of the IEEE Societies and Councils with the highest level of student support. Moreover, the Society provides financial, technical, and professional support to a large number of impactful humanitarian projects, workshops, and other activities in parts of the world in the most critical need for such help and support (this is not included in Figure 10), and here, AP-S is probably the leading IEEE Society/Council.

The AP-S YP Committee has recently created a unique YP Ambassadors Program, similar to the DL Program, except that the speakers are YPs.

Our most recent undertaking is the establishment of the IEEE AP-S Endowment Fund, aimed at streamlining the fundraising activities and investments directly related to AP talent development worldwide through support to students and YPs for travel, fellowships, student competitions, YP Ambassadors, the DL Program, and research and humanitarian projects conducted by students and YPs.

PUBLICATIONS

Our publications are a highlight of the Society and our technical achievements and impacts. Figure 11 shows our journals, namely, *IEEE Transactions on Antennas and Propagation* [24], *IEEE Antennas and Wireless Propagation Letters*, *IEEE Antennas and Propagation Magazine*, and *IEEE Open Journal on Antennas and Propagation*. Indeed, our Transactions, Letters, Magazine, and Open Journal are performing extremely well, with excellent Impact Factors (IFs) and reputations (Figure 11). This is thanks to incredible work and contributions by our EICs (Figure 4), Editorial Boards, Track Editors, Associate Editors, article reviewers, and—most noteworthy—our article authors.

FIGURE 10. AP-S provides hundreds of research grants, scholarships, fellowships, and travel grants to students and others every year, which makes us one of the IEEE Societies and Councils with the highest level of student support. A number of these opportunities are associated with our flagship APS/URSI Conferences, as illustrated by moments from the 2022 edition in Denver, Colorado, USA [23]. Moreover, the Society and its committees sponsor and support many humanitarian projects and workshops worldwide (not included in the figure).

Just a few quick facts for the AP Transactions for 2023: An IF of 5.7; an Article Influence Score of 1.242; 3,142 original submissions; 10,100 published pages; article usage of 6,491,835 (views and downloads) on IEEE *Xplore*; and third among all IEEE periodicals in terms of article usage.

In addition, we run several more IEEE journals together with our sister Societies, for example, *IEEE Journal on Multiscale and Multiphysics Computational Techniques* and *IEEE Journal of Electromagnetics, RF and Microwaves in Medicine and Biology* (Figure 11) as well as *IEEE Transactions on Quantum Engineering* and *IEEE Transactions on Radar Systems*.

AP-S activities, including publications, have become truly international with worldwide outreach, engagement, and the impacts of everything we do. While a few decades ago, the articles of the AP-S journals were coming from a small number of developed countries, Figure 12

FIGURE 11. A quick overview of the AP-S journals, led by the EICs shown in Figure 4. Also shown are two of the journals that we run jointly with our sister IEEE Societies.

FIGURE 12. The Global impact of AP-S journals: worldwide distribution, by countries, of articles published in our journals (in Figure 11)—in 2023. Also shown in the figure inset for reference is the distribution for 1980.

demonstrates that in 2023, our articles are coming from almost every corner of the world.

CONFERENCES

Our conferences are yet another principal signature of AP-S. Our flagship conference is the IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting – APS/URSI Conference, held every summer, in July, at different locations throughout the world. All our flagship conferences, including the most recent ones in Singapore, Denver, and Portland (Figure 13), were great successes, providing technically productive, professionally rewarding, and socially enjoyable experiences for the attendees. Simply, one needs to attend one of our flagship conferences to fully learn and appreciate who we as the Society and the community are. Figure 10 includes some pictures from the 2022 edition in Denver, Colorado, USA.

Simply, one needs to attend one of our flagship conferences to fully learn and appreciate who we as the Society and the community are.

Whereas up until recently APS/URSI Conferences took place exclusively in North America (the United States and Canada), the next five editions, APS/URSI 2024–2028, will take place in four different countries around the world, as indicated in Figure 13. With preparations well underway, fantastic venues selected, and dedicated organizing committees on board, these events promise to be great successes as well.

In addition to flagship APS/URSI Conferences, we financially sponsor (own) or cosponsor (co-own) several other IEEE conferences, which are either topical or focused on particular regions of the world or both. About 10 years ago, we launched four new international (financially sponsored) topical conferences to better serve IEEE Regions 8, 9, and 10 (see the map of IEEE Regions in Figure 8). These are the IEEE Conference on Antenna Measurements and Applications (CAMA), IEEE International Conference on Computational Electromagnetics (ICCEM), IEEE Radio and Antenna Days of the Indian Ocean (RADIO), and IEEE Topical Conference on Antennas and Propagation in Wireless Communications (APWC), with CAMA moving throughout Regions 8 and 10, ICCEM being held in Region 10, RADIO being held in Africa, and APWC, held in conjunction with ICEAA, alternating between Europe and the rest of the world (Figures 13 and 14).

We recently introduced two new international conferences, the IEEE Microwave and Antennas Propagation Conference (MAPCON) and the International Microwaves and Antennas Symposium (IMAS), focusing on the Indian subcontinent and Africa, respectively (Figure 13). Both conferences are financially (and technically) cosponsored (50/50) by AP-S and MTT-S. The inaugural editions in Bangalore, India, and Cairo, Egypt, were extremely successful.

Furthermore, AP-S is a technical sponsor or cosponsor of about 30 conferences a year, all around the world, as depicted

FIGURE 13. The Flagship IEEE International Symposia on Antennas and Propagation and USNC-URSI Radio Science Meetings – APS/URSI Conferences and other AP-S financially (co)sponsored conferences all over the world.

in Figure 14. The AP-S leadership, volunteers, and members are helping the organizers of our technically cosponsored conferences ensure and enhance the quality of their technical programs, conference presentations, and publications. Additionally, AP-S is enabling that the conference papers be published on IEEE *Xplore*.

DIGITAL COMMUNICATIONS

Our digital communications (EIC shown in Figure 4), including the AP-S website, Newsletter, and social media, are very effective and popular, as portrayed in Figure 15. The principal goal is to unify and synchronize the informative and promotional activities and efforts of the Society and all of its committees

FIGURE 14. 2023 conferences financially or technically sponsored or cosponsored by AP-S throughout the world.

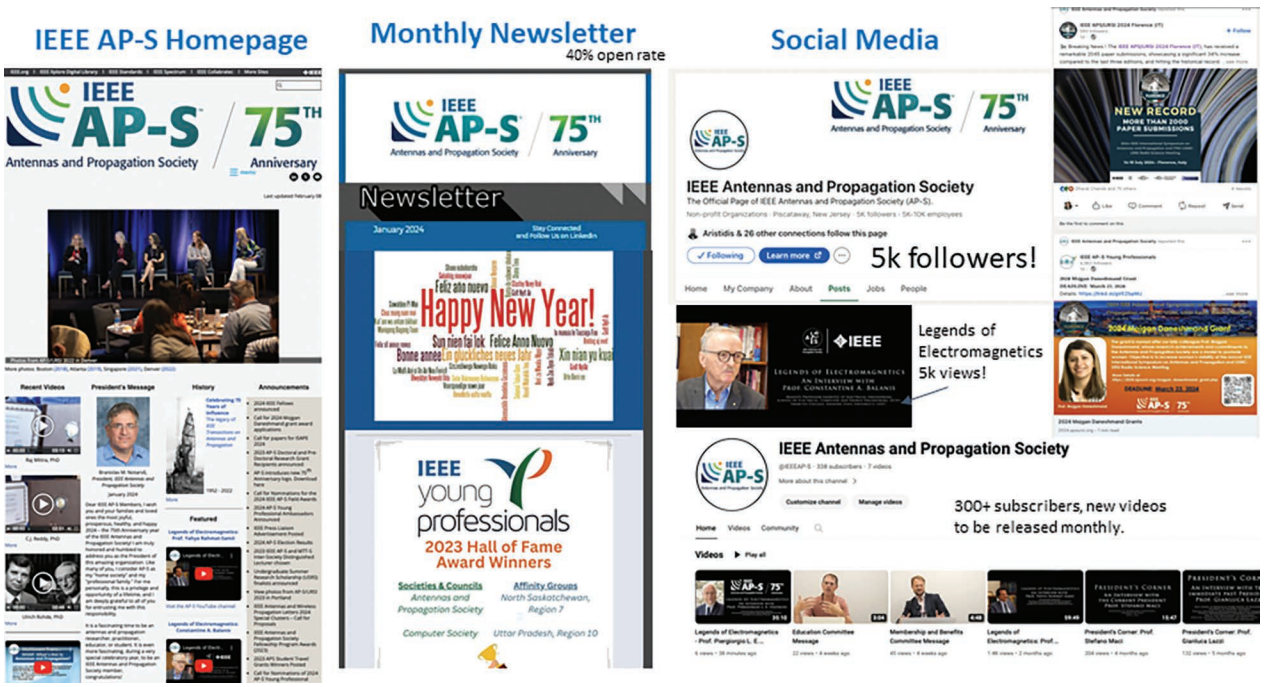

FIGURE 15. IEEE AP-S digital communications, with the EIC shown in Figure 4, run the website, https://ieeeaps.org, video interviews, Newsletter, and social media to inform the members and public and promote the Society's activities, taking full advantage of global cyberspace.

and volunteers through digital channels, taking full advantage of modern electronic infrastructure and global cyberspace. Some of the new initiatives include video interviews with the "Legends of Electromagnetics," Society leaders, and most active Society volunteers, as well as consistent LinkedIn feeds to connect with our members worldwide.

CONCLUSION

This article has presented an overview of the state of the IEEE Antennas and Propagation Society as part of the celebration of its 75th Anniversary. It has attempted to provide a high-level, comprehensive, and self-contained outline of the activities, goals, and accomplishments of the Society and all of its volunteers and members. It has described the Society's operation and governance, technical activities and directions, membership and geographic activities, education and training, publications, conferences, and digital communications, in a way that Magazine readers and AP-S members may find useful, illustrative, informative, and interesting. Where appropriate, the discussion has been supported by numbers, parameters, and graphical inputs. It is hoped that the overview has offered an archival picture of the Society at a very special celebratory time in its history.

As shown, the state of the AP Society is truly outstanding. This is thanks to the incredible work and contributions by AP-S leaders, volunteers, and members throughout our history of 75 years.

It is a fascinating time to be an antennas and propagation researcher, practitioner, educator, or student. It is even more fascinating, during a very special celebratory year, to be an IEEE Antennas and Propagation Society member.

As discussed, however, the unparalleled potential of AP-S for the future is even more important than its extraordinary history and laudable present. Indeed, the next 75 years of AP and AP-S are guaranteed to be equally rich, fascinating, and intense!

ACKNOWLEDGMENT

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AUTHOR INFORMATION

Branislav M. Notaroš (notaros@colostate.edu) is a professor and University Distinguished Teaching Scholar at Colorado State University, Fort Collins, CO 80523-1373 USA. He serves as the President of the IEEE Antennas and Propagation Society and was the President of the Applied Computational Electromagnetics Society and General Chair of the IEEE APS/URSI 2022 Denver Conference.

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