History Activities Coordinator — Martin J. Bastiaans

The History Activities Coordinator is assisted by Tony Davies, Past History Activities Coordinator (2013–2020), and the current or past IEEE History Committee members Ahmed Zobaa (2024), Antonio Savini (2022–2024), Evgen Pichkalyov (2022–2023), Mathini Sellathurai (2024), Sergei Prokhorov (2022-2024) and Stefano Selleri (2023–2024).
The team can be contacted via history@ieeer8.org.


Martin

Tony

Ahmed

Antonio

Evgen

Mathini

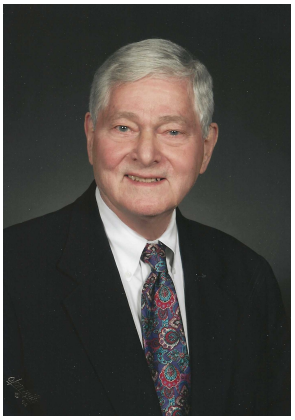
Sergei

Stefano

Please check our webpages **Region 8 History Activities** and **History of IEEE Region 8** on a regular basis.

Bruce Barton Barrow, the 'founding father' of our Region (but from its foundation date – 24 April 1962 – until the AIEE/IRE merger, still a Region of the Institute of Radio Engineers: IRE Region 9), passed away on 30 November 2023 at the age of 94.

Text taken from the Oral History interview conducted on 22 november 2013:



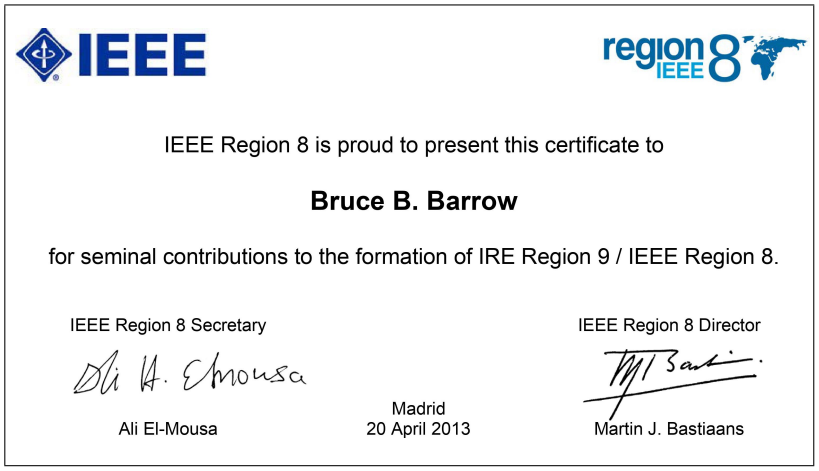
Bruce B. Barrow is an IEEE Life Fellow and a founding member of the IRE Benelux Section and a founder of the Benelux Section in Region 8. He was elevated to IEEE Fellow in 1970 "for contributions to the field of standardization and to communication theory and practice."

Barrow earned a B.S. and M.S. in EE from Carnegie Institute of Technology, in 1950, where he was a George Westing House Scholar; an EE from M.I.T., in 1956 (Tau Beta Pi Fellow); and a Ph.D., cum laude, from the Technological University, Delft, the Netherlands, in 1962, where he was a Fulbright Scholar. He also attended the Advanced Management Program at the Harvard Graduate School of Business Administration (1971).

Barrow spent his career in electronics engineering in communication systems and theory, performing important original research on data transmission over fading radio channels. He is recognized for his work in tropospheric scatter and tropospheric remote sensing. He is the principal co-author of the first IEEE standard on metric practice (IEEE Spectrum, March 1966) and published articles about the metric system and weights and measures. He served on metric practice committees of ASTM, SAE, American Welding Society, NFPA, and the Canadian Standards Association; and as Technical Advisor to ISTO Technical Committee 12 and IEC Technical Committee 25. He is the recipient of many awards, including the IEEE Charles Proteus Steinmetz Award (1987) 'for outstanding leadership in national and international electrical and electronic standardization activities; the IEEE Centennial Medal (1984), the IEEE Third Millenium Medal (2000), and the IEEE-SA Standards Medallion (2016).

In 1959, Barrow initiated the petition to establish the Benelux Section of the IRE, the first IRE Section in Europe and served as Secretary Treasurer. In 1960, he organized the IRE Conference on Data Transmission in Delft, Netherlands, the first data transmission conference and the first international IRE conference outside North America. He has held volunteer posts at IEEE, including Secretary Treasure of the IRE Benelux Section in 1959, Vice-Chairman of IEEE Technical Activities Board (1973); Chair, Boston Section; Chair, Standards Board, and Member, IEEE Board of Directors.

More information about Bruce Barrow can be found in the Region 8 History book and in the Oral History interview that was recently published on ETHW.


IEEE

region IEEE 8

IEEE Region 8 is proud to present this certificate to

Bruce B. Barrow

for seminal contributions to the formation of IRE Region 9 / IEEE Region 8.

IEEE Region 8 Secretary — Ali El-Mousa

Madrid
20 April 2013

IEEE Region 8 Director — Martin J. Bastiaans

A. Focal points for 2024

Note: Items in red require actions by Sections.

- **IEEE Milestones**, see http://ieeemilestones.ethw.org/IEEE_Milestones_Program

  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. Milestones recognize the technological innovation and excellence for the benefit of humanity found in unique products, services, seminal papers and patents. Milestones are proposed by any IEEE member, and are sponsored by an IEEE Organizational Unit, such as an IEEE Section, Society, Chapter or Student Branch. After recommendation by the IEEE History Committee and approval by the IEEE Board of Directors, a bronze plaque commemorating the achievement is placed at an appropriate site with an accompanying dedication ceremony.

  - Sections are advised to propose Milestones for significant achievements that took place in their Section. If necessary, a list of achievements suitable for Milestones is available, but we need volunteers – maybe a group of Life Members? – to work out a proposal.
  - An additional sign placed in the vicinity of the official Milestone plaque, with a QR code leading to a link with a description of the Milestone, may draw more attention to the Milestone and provides to the general public an easy way to more specific information about it.
  - The Region 8 Director has appointed **Claire Lajoie-Mazenc** as an AdHoc member of the Region 8 Committee. Claire chairs an Ad Hoc committee to increase awareness of IEEE Milestones and will report to the Region 8 Committee through the History Activities Coordinator. The AdHoc committee **IEEE Milestones Awareness**, consisting of Claire Lajoie-Mazenc (France), Adam Dabrowski (Poland), Levente Kovacs (Hungary), Neecharl Ramprosand (Mauritius) and Stanimir Valtchev (Portugal), should remind Section officers to stimulate nominations of Milestones in their Section, remind the importance of publicizing the Milestones that have been already awarded in the Region and their respective Sections, . . . , and should therefore define a plan for increasing the awareness and the messages that should be distributed to achieve this goal.
- **Documenting the history of Region 8 Sections** at the Engineering and Technology History Wiki, see https://ethw.org/

  The Engineering and Technology History Wiki (ETHW) is a wiki-based platform that allows IEEE members and Organizational Units to collaboratively preserve and share their history (including, for instance, the history of individual IEEE Sections). ETHW hosts the Milestones, Oral Histories, and Archives programs, and also allows IEEE members to contribute to Wikipedia-style topic articles or to preserve their own first-hand histories.

  - Sections are strongly advised to document their history at the ETHW website. The Region 8 history book *A short history of IRE Region 9 / IEEE Region 8* may form a source of information and of inspiration for what to preserve. For your convenience, the table of contents of the book has been included at the end of this report.
  - Sections are also advised to look for scientists and engineers who achieved important scientific or technical results that – although not qualified for a Milestone – may deserve a broader attention; such people could be interviewed and the interview can then be made public as an 'Oral History'.
  - Sections are advised to appoint a History Coordinator. Please inform me about the person in your Section who acts as the History Coordinator; I can then get into contact with these coordinators directly.
- **Region 8 history book**, available at https://ethw.org/w/images/a/a6/R8_history.pdf

  The book *A short history of IRE Region 9 / IEEE Region 8* presents a history of IEEE Region 8 spanning its origins from the IRE Region in Europe, through the IRE/AIEE merger forming the IEEE and subsequently to the present day Region 8 consisting of Europe, the Middle East, and Africa. Included are personal reflections of past directors, committee meetings and conferences, student activities, award recipients from Region 8, and Region 8 history papers presented at HISTELCON 2012. A number of archival documents are attached as appendices, including ephemera and minutes from early Region 8 Committee meetings.
  The table of contents of the book has been added at the end of this report for easy reference.

  - This book is a living document and is updated whenever new material becomes available. Feel free to send any comments and suggestions for additions to m.j.bastiaans@ieee.org.
  - The book may form a source of information and of inspiration for what to preserve in a Section's history document.
- **Miscellaneous**
  - **HISTELCON 2025**, **Bonn**, **Germany**, **30 September – 2 October 2025**. Contributions from Region 8 are solicited for this Region 8 flagship conference.
  - *History of IEEE since 1984* is a wiki webpage that is currently in progress. Contributions from Regions 7–10 are very welcome, otherwise the book may be USA-dominated.

B. Recent Milestone dedications in Region 8

- **Paris/Lyon**, **France**, *The birth of electrodynamics*, 1820-1827 #233 (61)
  Dedicated **3 April 2023** (Paris) and **4 April 2023** (Lyon) – IEEE France Section

Stimulated by experimental reports that an electric current could deflect a compass needle, André-Marie Ampère discovered the fundamental law of electrodynamics, the science of interactions between electric currents. He then developed the theory that electric currents are responsible for magnetism. These achievements formed the basis for electrical technologies, including electric motors and generators. In 1881, the International Electrical Congress named the unit of electric current the 'ampere' (A).

- **Grenoble**, **France**, *MPEG Multimedia Integrated Circuits*, 1984-1993 #237 (62)
  Dedicated **28 September 2023** – IEEE France Section
  Beginning in 1984, Thomson Semiconducteurs (now STMicroelectronics) developed multimedia integrated circuits, which accelerated Moving Picture Experts Group (MPEG) standards. By 1993, MPEG-2 integrated decoders – including innovative discrete cosine transform (developed jointly with ENST, now Telecom ParisTech), bitstream decompression, on-the-fly motion compensation, and display unit – were announced in one silicon die: the STi3500. Subsequent MPEG-2 worldwide adoption made compressed full-motion video and audio inexpensive and available for everyday use.
- **Skopje**, **North Macedonia**, *First robotic control from human brain signals*, 1988 #239 (63)
  Dedicated **10 October 2023** – IEEE North Macedonia Section
  In 1988, in the Laboratory of Intelligent Machines and Bioinformation Systems, human brain signals controlled the movement of a physical object (a robot) for the first time worldwide. This linked electroencephalogram (EEG) signals collected from a brain with robotics research, opening a new channel for communication between humans and machines. EEG-controlled devices (wheelchairs, exoskeletons, etc.) have benefitted numerous users and expanded technology's role in modern society.
- **Paris**, **France**, *Invention of Sonar*, 1915-1918 #242 (64)
  Dedicated **7 December 2023** – IEEE France Section
  From 1915 to 1918, Paul Langevin demonstrated the feasibility of using piezoelectric quartz crystals to both transmit and receive pulses of ultrasound and thereby detect submerged submarines at ranges up to 1300 metres. The system, later called sonar, validated Constantin Chilowsky's proposal to use ultrasound for this purpose. The technology was used successfully during World War II, and led to other applications including depth sounding and medical echography.

The total number of dedicated **Milestones** in Region 8 is currently **63**, with 65 plaques located in 18 Sections: Benelux (4), Croatia (1), Denmark (1), France (7), Germany (6), Hungary (1), Israel (2), Italy (9), North Macedonia (1), Norway (1), Poland (2), Russia (Northwest) (2), Serbia and Montenegro (1), South Africa (1), Spain (2), Sweden (1), Switzerland (2), UK and Ireland (20), and Ukraine (1). Note that France and UK and Ireland have one Milestone (#44) in common, with different citations on the plaques, and that one of the Milestones in Poland (#205) has a duplicate plaque in Germany.

In addition to the actual Milestones, there are 2 **Special Citations**: one in Serbia and Montenegro (#1) and one in Germany (#3). Special Citations recognize events or institutions which – although not technical achievements as defined by the Milestone Program – have contributed to the profession. Examples might be: museums or archives with substantial holdings pertaining to the history of electrical engineering and computing, the holding of a seminal conference, or the formation of a technical society.

C. Recently approved Milestones in Region 8

- **Birmingham**, **UK and Ireland**, *The development of the cavity magnetron*, 1939-1941; approved **22-09-2023**
  Dedication ceremony planned for **4 June 2024**
- **Haifa**, **Israel**, *Intel 8087 Math Coprocessor*, 1980; approved **19-11-2023**
  Dedication ceremony planned for **1 July 2024**

A list of all **IEEE Milestones and Special Citations in Region 8** with links to ETHW and to their locations on Google maps, including the ones that are currently under investigation by the IEEE History Committee, is available here (.xlsx).

D. Events

- **HISTELCON 2023**, *Science and Technology or Technology and Science?*, took place in **Florence**, **Italy**, **7–9 September 2023** as a hybrid event, held both live and online, with the following program:

  Opening ceremonies and plenary session on Thursday afternoon
  Welcome addresses (6); Technical and Social Program presentation; Plenary session (6 papers)

  Two series of three parallel sessions on Friday morning
  1.1. Science and Technology or Technology and Science? I (5 papers); **1.2**. Museums and collections and new technologies for creating catalogues and exhibitions I (5 papers); **1.3**. From the gigahertz dream to mobile wireless: how the seeds of 5G were planted (5 papers);
  2.1. Science and Technology or Technology and Science? II (5 papers); **2.2**. Museums and collections and new technologies for creating catalogues and exhibitions II (5 papers); **2.3**. Panel meeting: Women step into technology: how it may change the history (5 presentations)

  Two series of three parallel sessions on Friday afternoon
  3.1. High tech developments in the history of radio astronomy I (5 papers); **3.2**. Humanistic studies I (5 papers); **3.3**. The Italian contribution to the progress in information and communication technologies (5 papers)

4.1. High tech developments in the history of radio astronomy II (2 papers) and Humanistic studies II (2 papers); **4.2**. Big companies (5 papers); **4.3**. Radar history (5 papers)

Gala dinner on Friday evening

Two series of two parallel sessions on Saturday morning
5.1. Foundational research I (5 papers); **5.2**. Italian academia and Italian industry in the early stages of computers (5 papers)
6.1. Foundational research II (5 papers); **6.2**. Radio and light science in Russia and the Soviet Union – from A.S. Popov to nowadays (7 papers)

Closing remarks

HISTELCON 2023 received 91 submissions (full papers or abstracts); 84 papers were accepted (based on 48 full papers and 36 abstracts). The number of participants was 97 (including a few online), of which 77 were presenting authors. More information in IEEE Antennas & Propagation Magazine, Vol. 65, Nr. 6, December 2023, pp. 56-57.

Held every two years, HISTELCON is a Region 8 flagship conference on the history of electrical engineering, electronics, computing, their applications, and their impact on humanity's social development. HISTELCON 2023 was already the eighth HISTELCON conference, with predecessors in Paris (2008), Madrid (2010), Pavia (2012), Tel-Aviv (2015), Kobe (2017, together with Region 10), Glasgow (2019), and Moscow (2021).

- The **proceedings of HISTELCON 1 through 7**, available in IEEE Xplore, are now freely accessible for everyone without any payment:
  1) Paris, France, 11–12 September 2008
  2) Madrid, Spain, 3–5 November 2010
  3) Pavia, Italy, 5–7 September 2012
  4) Tel Aviv, Israel, 16–21 August 2015, held jointly with the 42nd annual meeting of ICOHTEC, the International Committee for the History of Technology: History of High-Technologies and Their Socio-Cultural Contexts
  5) Kobe, Japan, 7–8 August 2017, together with IEEE Region 10
  6) Glasgow, United Kingdom, 18–19 September 2019
  7) Moscow, Russia, 10–12 November 2021
  8) Florence, Italy, 7–9 September 2023 (not yet freely accessible)

E. Activities of the History Activities Coordinator

- Updated the **History Activities** webpage and the **History** webpage on the Region 8 website.
- Updated the **Region 8 history book** (.pdf).
- Updated the **list of Sections and Subsections in Region 8** (.xlsx); see also Section 2.4 in the Region 8 history book.
- Updated the **Geographic Unit statistics at year end** (.xlsx); see also Section 2.5 in the Region 8 history book with several additional remarks.
- Updated the **Membership statistics at year end** (.xlsx); see also Section 2.6 in the Region 8 history book.
- Updated the **list of Region 8 Committee meetings** (.xlsx); see also Chapter 5 in the Region 8 history book.
- Updated the **list of Region 8 Conferences** (.xlsx); see also Chapter 6 in the Region 8 history book.
- Updated the **list of Region 8 Student Paper Contest finals** (.xlsx); see also Section 7.5 in the Region 8 history book.
- Updated the **list of awards presented to members who reside in Region 8** (.xlsx); see also Chapter 8 in the Region 8 history book.
- Updated the **list of IEEE Milestones in Region 8** (.xlsx); see also Section 9.2. in the Region 8 history book.
- Updated the **list of IEEE Directors residing in Region 8** (.xlsx).
- Updated the **list of Oral Histories related to Region 8** (.xlsx) with links to ETHW; see
  - ***Bruce Barrow**, an oral history conducted in 2013 by Sheldon Hochheiser, IEEE History Center, Piscataway, NJ, USA*. The interviewee can be considered as the 'founding father' of both the IRE Benelux Section (founded 13 May 1959) and IRE Region 9 (founded 24 April 1962, less than a year before the merger of AIEE and IRE to IEEE).
  - ***Peer Martin Larsen**, an interview conducted by Anthony (Tony) C. Davies, IEEE History Center, 19 April 2013*. The interviewee was the Region 8 Director in 1995-1996.
  - ***Kurt Richter**, an interview conducted by Anthony (Tony) C. Davies, IEEE History Center, 19 April 2013*. The interviewee was the Region 8 Director in 1991-1992.
- 29-08-2023: Attended the August teleconference of the HISTELCON Steering Committee.
- 06-09-2023: Attended the face-to-face meeting of the IEEE History Committee in Florence, Italy.
- 07-09-2023: Participated in the face-to-face meeting of the Italy Section Life Members Affinity Group meeting in Florence, Italy.
- 07/09-09-2023: Attended HISTELCON 2023 in Florence, Italy.
- 26-09-2023: Attended the celebration of the 60th Anniversary of the Germany Section in Berlin, Germany.
- 10-10-2023: Represented Region 8 in the Milestone dedication ceremony *First robotic control from human brain signals* in Skopje, North Macedonia.
- 20-11-2023: Attended the November teleconference of the Region 8 Member Activities team.

- 30-11-2023: Attended the opening of the ENTER Technikwelt museum in Solothurn/Derendingen, Switzerland, and gave a presentation during the Switzerland Section Life Members Affinity Group meeting, entitled The early years of IRE Region 9 / IEEE Region 8.
- 5/6-12-2023: Participated in the Region 8 LMAG/HA meeting in Budapest and gave a presentation entitled IEEE R8 History Activities Committee / IEEE Milestones.

F. Interesting weblinks

- *A short history of IRE Region 9 / IEEE Region 8* – https://ethw.org/w/images/a/a6/R8_history.pdf (.pdf)
- Engineering and Technology History Wiki – https://ethw.org/
- List of IEEE Milestones – https://ethw.org/Milestones:List_of_IEEE_Milestones
- List of achievements suitable for Milestones – https://ieeemilestones.org/List_of_Achievements_Suitable_for_Milestones
- List of all Oral Histories – https://ethw.org/Oral-History:List_of_all_Oral_Histories
- List of First Hand Histories – https://ethw.org/First-Hand:List_of_First_Hand_Histories
- More links can be found on the IEEE Region 8 History Activities and History webpages.

G. Table of contents of the Region 8 history book 'A short history of IRE Region 9 / IEEE Region 8'