

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.

A. Focal points for 2024

- **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.

- **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.
- **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.
- **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

- **Birmingham, England, *Development of the cavity magnetron*, 1939–1941** #256 (65)
Dedicated **4 June 2024** – IEEE UK and Ireland Section
In this building from 1939 to 1941, University of Birmingham researchers John Randall, Harry Boot, and James Sayers conceived and demonstrated fundamental ways to improve the output power, efficiency, and frequency stability of cavity magnetrons. Further developed and refined by others, these advances facilitated the Allies' deployment of microwave radar systems in World War II. Cavity magnetrons were later adapted for use in industrial heating and microwave ovens.

The total number of dedicated **Milestones** in Region 8 is currently **64**, with 66 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 (21), 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

- **Galway, Ireland**, *Anderson bridge, 1891*; approved **27-09-2024**
Dedication ceremony to be decided
- **Grenoble, France**, and **Agrate Brianza, Cornaredo, Catania, Italy**, *Integrated circuits for satellite digital radio, 1996–1997*; approved **27-09-2024**
Dedication ceremony to be decided
- **Berlin, Germany**, *Long distance transmission of electrical power using three-phase alternating current, 1889–1912*; approved **23-06-2024**
Dedication ceremony to be decided
- **Haifa, Israel**, *Intel 8087 Math Coprocessor, 1980*; approved **19-11-2023**
Dedication ceremony postponed

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 2025**, *Knowing the past for preparing the future: Lessons of Electrotechnology for the Age of AI*, will take place in **Bonn, Germany, 30 September – 2 October 2025**
Held every two years, HISTELCON – **HIST**ory of **EL**ectrotechnol**Y** **CON**ference – 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 2025 will be the ninth HISTELCON, with predecessors in Paris (2008), Madrid (2010), Pavia (2012), Tel-Aviv (2015), Kobe (2017, together with Region 10), Glasgow (2019), Moscow (2021), and Florence (2023).
- The **proceedings of HISTELCON 1 through 8**, 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

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 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 Award recipients 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 Region 8 Section history officers** ([.xlsx](#))
- Updated the **list of Region 8 History Network subscribers** ([.xlsx](#))
- 15-02-2024: Attended the 2024 kick-off teleconference of the Region 8 Member Activities team.
- 23-02-2024: Sent the Region 8 History Activities Report 122 ([.pdf](#)) and the Region 8 History Activities Presentation 122 to the Region 8 History Network subscribers, together with a request for Section History Coordinators.
- 2/3-03-2024: Attended the March meeting of the IEEE Region 8 Committee in Vienna, Austria.
- 04-06-2024: Attended the Milestone dedication ceremony *Development of the cavity magnetron* in Birmingham, England.
- 06-06-2024: Attended the Q2 teleconference of the Region 8 Member Activities team.
- 25-09-2024: Attended the Q3 teleconference of the Region 8 Member Activities team.

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://ieemilestones.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’

- Preliminary steps towards and the early history of a new Region
 - Information taken from the Benelux Section archives
 - IRE Region in Europe – Bruce B. Barrow
 - A Region’s ‘Birth Certificate’
 - The start of Region 8 and its Sections – Robert C. Winton
 - IRE/AIEE Merger – Bruce B. Barrow
- The later history of IEEE Region 8
 - The creation of IEEE Region 10 and the extension of Region 8
 - The Eastward spread of Sections in Region 8 – Tony Davies
 - Yugoslavia Section from 1971 to 1992 – Baldomir Zajc
 - The present IEEE Region 8 Sections
 - Geographic Unit statistics at year end
 - Membership statistics at year end
- IEEE Region 8 Operating Committees and Appointed Members
 - Operating Committees
 - Appointed Representatives
 - Appointed Coordinators and Subcommittee Chairs
 - Past Directors gallery
- Personal reflections of Past Directors
 - Jean D. Lebel (Director 1965–1966)
 - Rolf Remshardt (Treasurer 1983–1998, Director 1999–2000)
 - Anthony C. Davies (Director 2003–2004)
 - Baldomir Zajc (Director 2005–2006)
- IEEE Region 8 Committee meetings
- IEEE Region 8 conferences
 - EUROCON 71 – Reminiscences by Fritz Eggimann
 - Conference activities in Region 8 – The first 30 years – Jacob Baal Schem
 - Conference activities in Region 8 – After the first 30 years – Baldomir Zajc
- Student activities
 - The early years of IEEE Region 8 Student Activities – until 1984
 - Student Activities Committee meetings – until 1984
 - Student Branch (and GOLD / Young Professional) Congresses
 - Cross-Sectional Student Branch (and GOLD / Young Professional) Congresses
 - Student Paper Contest Finals
- IEEE Award recipients from Region 8
- Miscellaneous lists
 - Region 8 News
 - IEEE Milestones in Region 8
 - Miscellaneous
- History papers presented at HISTELCON 2012
 - Researching the roots of IEEE Region 8 – Martin J. Bastiaans
 - Setting up the basis for Region 8 – Jean D. Lebel
 - Conferences, technical societies and development – A history of synergy – Jacob Baal–Schem
 - ...Go East, Region 8, Go East ... – Anthony C. Davies
- Appendices
 - Minutes of the meeting of the IRE Inter-Sectional Committee
 - Birth certificate
 - IEEE Regions after the merger
 - Invitations/agendas for the IRE Region 9 Committee meetings
 - Minutes of the two IRE Region 9 Committee meetings
 - Invitations/agendas for the early IEEE Region 8 Committee meetings
 - Minutes of the early IEEE Region 8 Committee meetings

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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.

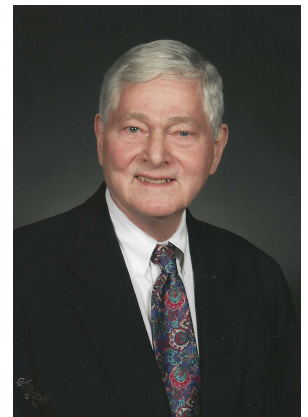
Text taken from the Oral History interview conducted on 22 november 2013:

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.”

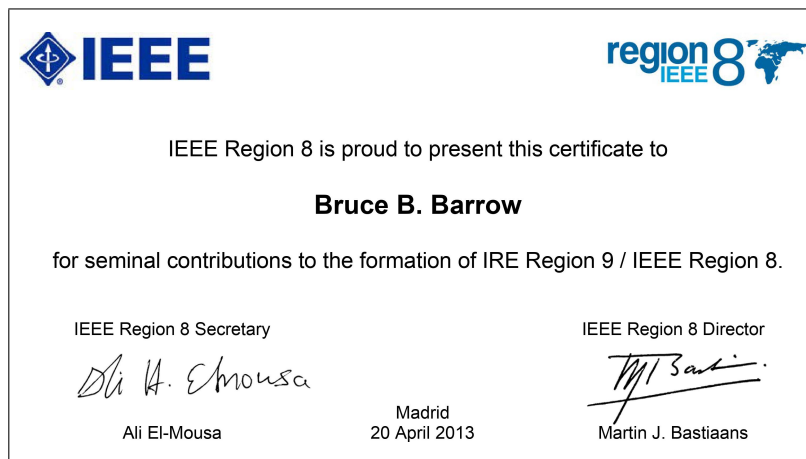
Barrow earned a B.S. and M.S. in EE from Carnegie Institute of Technology, in 1950, where he was a George Westing House Scholar; an EE from M.I.T., in 1956 (Tau Beta Pi Fellow); and a Ph.D., cum laude, from the Technological University, Delft, the Netherlands, in 1962, where he was a Fulbright Scholar. 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 Millennium 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.



A. Focal points for 2024

Note: Items in **red** require actions by Sections.

- **IEEE Milestones**, see http://ieemilestones.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:
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 - 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)
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- 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.

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History Activities Coordinator

Martin J. Bastiaans

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



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Tony



Antonio



Evgen



Sergei



Stefano

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

A. Focal points for 2023

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 will chair 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), Stanimir Valtchev (Portugal), Levente Kovacs (Hungary), and Neecharl Ramprosand (Mauritius), 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 2023, *Science and Technology or Technology and Science?*, Florence, Italy, 7–9 September 2023** (in hybrid form).
- *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, France, *The birth of electrodynamics*, 1820-1827** #233 (61)
Dedicated **3 April 2023** – 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).

The total number of dedicated **Milestones** in Region 8 is currently 60, with 62 plaques located in 18 Sections: Benelux (4), Croatia (1), Denmark (1), France (5), Germany (6), Hungary (1), Israel (2), Italy (9), 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

- **Grenoble, France, *MPEG Multimedia Integrated Circuits*, 1984-1993; approved 30-09-2022**
Dedication ceremony to be decided, probably 28 September 2023
- **Skopje, North Macedonia, *First robotic control from human brain signals*, 1988; approved 20-02-2023**
Dedication ceremony to be decided, probably late October 2023
- **Paris, France, *Invention of Sonar*, 1915-1918; approved 18-06-2023**
Dedication ceremony to be decided, probably early December 2023

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?*, will take place in Florence, Italy, 7–9 September 2023.**

HISTELCON is a Region 8 flagship conference held every two years on the history of electrical engineering, electronics, computing, their applications, and their impact on humanity's social development. HISTELCON 2023 is 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).

HISTELCON 2023 will be a hybrid event, held both live and online. The conference official language is English; all presentations will be oral. The conference will be hosted in the magnificent Florence city center on 7–9 September 2023 supported by the IEEE Italy Section.

The conference leading topic is *Science and Technology or Technology and Science?*, however, different topics are welcome, including but not limited to: Technology museums, Computers and microprocessors, Device and system vulnerability, Foundational research and Big Science, Measurement systems and units, Big corporations.

More information is available at <https://2023.ieee-histelcon.org/>.

- 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

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 **Geographic Unit statistics at year end** (.xlsx); see also Section 2.5 in the Region 8 history book with several additional remarks.
- Updated the **list of Sections and Subsections in Region 8** (.xlsx); see also Section 2.4 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 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.
- 15-03-2023: Attended the March teleconference of the HISTELCON Steering Committee.
- 25/26-03-2023: Attended the March meeting of the IEEE Region 8 Committee in Bucharest, Romania.
- 01-04-2023: Sent the Region 8 History Activities Report 120 (.pdf) and the Region 8 History Activities Presentation 120 (.pdf) to the people who have shown interest in the Region's history activities.
- 26-05-2023: Attended the May teleconference of the HISTELCON Steering Committee.
- 27-06-2023: Attended the June teleconference of the Region 8 Member Activities team.

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
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• Miscellaneous

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Paper submission deadline: **15 April 2023**
- *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

- **Budapest, Hungary, *Budapest Metroline No. 1*, 1896** #229 (59)
Dedicated **20 October 2022** – IEEE Hungary Section
In 1896, Budapest Metro Line No. 1 was inaugurated, the first underground railway designed specifically to use electric power, rather than adapted from steam-powered systems. It offered several innovative elements, including bidirectional motor carriages, the “goose neck chassis,” and electric lighting in the stations and carriages. This line's design influenced later subway construction in Boston, Paris, Berlin, and other metropolitan areas worldwide.
- **Hayes, England, *First computerized tomography (CT) X-ray scanner*, 1971** #231 (60)
Dedication **26 October 2022** – IEEE UK and Ireland Section
On 1 October 1971, a team at the EMI Research Laboratories located on this site produced an image of a patient's brain, using the world's first clinical X-ray computerized tomography scanner, based on the patented inventions of Godfrey Hounsfield. The practical realization of high-resolution X-ray images of internal structures of the human body marked the beginning of a new era in clinical medicine.

The total number of dedicated **Milestones** in Region 8 is currently 59, with 61 plaques located in 18 Sections: Benelux (4), Croatia (1), Denmark (1), France (4), Germany (6), Hungary (1), Israel (2), Italy (9), 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

- **Grenoble, France, *MPEG Multimedia Integrated Circuits*, 1984-1993; approved 30-09-2022**
Dedication ceremony to be decided
- **Paris, France, *The birth of electrodynamics*, 1820-1827; approved 20-11-2022**
Dedication ceremony planned for **3 April 2023** in **Paris** and **4 April 2023** in **Lyon**
- **Skopje, North Macedonia, *First robotic control from human brain signals*, 1988; approved 20-02-2023**
Dedication ceremony to be decided

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?*, will take place in Florence, Italy, 7–9 September 2023.**

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The conference leading topic is *Science and Technology or Technology and Science?*, however, different topics are welcome, including but not limited to: Technology museums, Computers and microprocessors, Device and system vulnerability, Foundational research and Big Science, Measurement systems and units, Big corporations. More information is available at <https://2023.ieee-histelcon.org/>.

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 - 5) Kobe, Japan, 7–8 August 2017, together with IEEE Region 10
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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 **Membership statistics at year end** (.xlsx); see also Section 2.6 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 **list of Sections and Subsections in Region 8** (.xlsx); see also Section 2.4 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 *Hendrik Van Brussel, an oral history conducted in 2011 by Peter Asaro, Indiana University, Bloomington Indiana*, for Indiana University and the IEEE. The interviewee is residing in the IEEE Benelux Section.
- 15/16-10-2022: Attended the October meeting of the IEEE Region 8 Committee in Cairo, Egypt.
- 27-10-2022: Attended the IEEE Region 8 Life Member Affinity Group meeting in Prague, Czech Republic, and gave a presentation entitled IEEE R8 History Activities Committee / IEEE Milestones (.pdf).
- 02-01-2023: Sent the Region 8 History Activities Final Report 2021-2022 (.pdf) to the people who have shown interest in the Region's history activities.
- 30-01-2023: Attended the January teleconference of the Region 8 Member Activities team.

F. Interesting weblinks

- *A short history of IRE Region 9 / IEEE Region 8* – https://ethw.org/w/images/a/a6/R8_history.pdf (.pdf)
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History Activities Coordinator

Martin J. Bastiaans

The History Activities Coordinator is assisted by Tony Davies, Past History Activities Coordinator (2013–2020), Antonio Savini, current IEEE History Committee Chair (2022–2023), and Evgen Pichkalyov and Sergei Prokhorov, current IEEE History Committee members (2022–2023).

A. Focal points for 2022

Note: Please refer to the previous report for the highly appreciated **actions by the 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.
- **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.
- **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.
- **A few minor focal points**
 - HISTELCON 2023, Florence, Italy, 7–9 September 2023 (in hybrid form). **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

- **Leiden, Netherlands**, *String galvanometer to record a human electrocardiogram*, 1901–1905 #222 (55)
Dedicated **8 April 2022** – IEEE Benelux Section
On 22 March 1905, the first successful clinical recording of a human electrocardiogram (ECG) took place at this location, which at the time was the Academic Hospital Leiden. Willem Einthoven’s pioneering work, from 1901 to 1905, resulted in a string galvanometer specifically designed to measure and record the heart’s electrical activity, which made this medical achievement possible. This invention marked the beginning of electrocardiography as a major clinical diagnostic tool.
- **Eynsham, England**, *Active shielding of superconducting magnets for MRI*, 1984–1989 #224 (56)
Dedicated **17 June 2022** – IEEE UK and Ireland Section
At this site, the first actively shielded superconducting magnets for diagnostic magnetic resonance imaging (MRI) use were conceived, designed, and produced. Active shielding reduced the size, weight, and installed cost of MRI systems, allowing them to be more easily transported and advantageously located, thereby benefiting advanced medical diagnosis worldwide.
- **Manchester, England**, *Manchester University “Baby” computer and its derivatives*, 1948–1951 #225 (57)
Dedicated **21 June 2022** – IEEE UK and Ireland Section
At this site on 21 June 1948 the “Baby” became the first computer to execute a program stored in addressable read-write electronic memory. “Baby” validated Williams-Kilburn Tube random-access memories, later widely used, and led to the 1949 Manchester Mark I which pioneered index registers. In February 1951, Ferranti Ltd’s commercial derivative became the first electronic computer marketed as a standard product delivered to a customer.
- **Manchester, England**, *The Atlas computer and the invention of virtual memory*, 1957–1962 #226 (58)
Dedicated **21 June 2022** – IEEE UK and Ireland Section
The Atlas computer was designed and built in this building by Tom Kilburn and a joint team of the University of Manchester and Ferranti Ltd. The most significant new feature of Atlas was the invention of virtual memory, allowing memories of

different speeds and capacities to act as a single large fast memory separately available to multiple users. Virtual memory became a standard feature of general-purpose computers.

The total number of dedicated **Milestones** in Region 8 is currently 57, with 59 plaques located in 17 Sections: Benelux (4), Croatia (1), Denmark (1), France (4), Germany (6), Israel (2), Italy (9), Norway (1), Poland (2), Russia (Northwest) (2), Serbia and Montenegro (1), South Africa (1), Spain (2), Sweden (1), Switzerland (2), UK and Ireland (19), 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.

Note that as a result of the motion that passed in the 9 June 2022 IEEE History Committee meeting, Milestones and Special Citations are now on separate lists, and the numbering of Milestone dedications has been updated; this has affected all Milestones of which the dedication ceremony took place between October 2015 and May 2022.

C. Recently approved Milestones in Region 8 and planned dedication ceremonies

- Budapest, Hungary, *Budapest Metroline No. 1*, 1896; approved **24–11–2019**.
Dedication ceremony planned for **19 or 20 October 2022**.
- Hayes, England, *First computerized tomography (CT) X-ray scanner*, 1971; approved **19–05–2022**.
Dedication ceremony planned for **26 October 2022** with the unveiling of the Milestone plaque at Jupiter House, followed by a symposium at the Royal Institution of Britain on 27 October 2022.
More information on the IEEE UK and Ireland Section website.

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?*, will take place in Florence, Italy, 7–9 September 2023.
HISTELCON is a Region 8 flagship conference held every two years on the history of electrical engineering, electronics, computing, their applications, and their impact on humanity's social development. HISTELCON 2023 is 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).
HISTELCON 2023 will be a hybrid event, held both live and online. The conference official language is English; all presentations will be oral. The conference will be hosted in the magnificent Florence city center on 7–9 September 2023 supported by the IEEE Italy Section.
The conference leading topic is *Science and Technology or Technology and Science?*, however, different topics are welcome, including but not limited to: Technology museums, Computers and microprocessors, Device and system vulnerability, Foundational research and Big Science, Measurement systems and units, Big corporations.
More information will soon be available at <https://2023.ieee-histelcon.org/>.
- 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

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](#)).
- Added the **Membership statistics at year end** ([.xlsx](#)); see also Section 2.6 in the Region 8 history book.
- Added 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 **list of Sections and Subsections in Region 8 (.xlsx)**; see also Section 2.4 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.
-
- 01/03-04-2022: Attended the April meeting of the IEEE Region 8 Committee in Warsaw, Poland.
 - 08-04-2022: Represented Region 8 at the Milestone dedication ceremony in Leiden, Netherlands.
 - 19-04-2022: Attended the April teleconference of the Region 8 Member Activities team.
 - 17-05-2022: Attended the May teleconference of the Region 8 Member Activities team.
 - 19-05-2022: Attended the teleconference of the Milestones Subcommittee of the IEEE History Committee.
 - 09-06-2022: Attended the June teleconference of the IEEE History Committee as a Past Committee member and as the Region 8 liaison.
 - 14-06-2022: Attended the June teleconference of the Region 8 Member Activities team.
 - 20/21-06-2022: Represented Region 8 at the Milestones dedication ceremony in Manchester, England.
 - 12-07-2022: Attended the July teleconference of the Region 8 Member Activities team.
 - 09-08-2022: Attended the August teleconference of the IEEE History Committee as a Past Committee member and as the Region 8 liaison.
 - 15-08-2022: Submitted the History Activities Operations Manual to Region 8 OpCom.
 - 16-08-2022: Attended the August teleconference of the Region 8 Member Activities team.
 - 10/11-09-2022: Attended the Region 8 Strategy Retreat in Geneva, Switzerland.

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.

Table of contents of the Region 8 history book ‘A short history of IRE Region 9 / IEEE Region 8’

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History Activities Coordinator

Martin J. Bastiaans

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A. Focal points for 2022

Note: Please refer to the previous report for the highly appreciated **actions by the Sections**.

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The table of contents of the book has been added at the end of this report for easy reference.
- **A few minor focal points**
 - *History of IEEE since 1984* is a wiki webpage that is currently in progress.

B. Recent Milestone dedications in Region 8

Due to COVID-19, there were no dedications in 2020. The following dedications in 2021 were partly virtual and could be followed via live streaming.

- **Torino, Italy**, *Rotating fields and early induction motors*, 1885–1888 #213 (51)
Dedicated **21 January 2021** – IEEE Italy Section
Galileo Ferraris, professor at the Italian Industrial Museum (now Polytechnic) of Turin, conceived and demonstrated the principle of the rotating magnetic field. Ferraris' field, produced by two stationary coils with perpendicular axes, was driven by alternating currents phase-shifted by 90 degrees. Ferraris also constructed prototypes of two-phase AC motors. Rotating fields, polyphase currents, and their application to induction motors had a fundamental role in the electrification of the world.
- **Cascina, Pisa, Italy**, *Gravitational-wave antenna*, 1972–1989 #214 (52)
Dedicated **3 February 2021** – IEEE Italy Section
Initially developed from 1972 to 1989, the gravitational-wave antenna enabled detection of ripples in spacetime propagating at the speed of light, as predicted by Albert Einstein's 1916 Theory of General Relativity. Construction of the Virgo Gravitational-Wave Observatory commenced in 1997. In 2017, Virgo and two antennas located in the US launched the era of Multi-Messenger Astronomy with the coordinated detection of gravitational waves from a binary neutron star merger.
- **Agrate Brianza, Milano, Italy**, *Multiple silicon technologies on a chip*, 1985 #219 (53)
Dedicated **18 May 2021** – IEEE Italy Section
SGS (now STMicroelectronics) pioneered the super-integrated silicon-gate process combining Bipolar, CMOS, and DMOS (BCD) transistors in single chips for complex, power-demanding applications. The first BCD super-integrated circuit, named L6202, was capable of controlling up to 60V-5A at 300 kHz. Subsequent automotive, computer, and industrial applications extensively adopted this process technology, which enabled chip designers flexibly and reliably to combine power, analog, and digital signal processing.
- **Paderborn, Germany**, *Special Citation: Heinz Nixdorf MuseumsForum*, 1996 #221 (2)
Dedicated **23 October 2021** – IEEE Germany Section

One of the largest computer museums in the world, the Heinz Nixdorf MuseumsForum presents 5000 years of computing history from the emergence of numbers and lettering circa 3000 B.C.E. to the modern digital age. Through presentations, workshops, seminars, and exhibitions, it has provided a broad audience with the insights and perspectives required to navigate a world that is increasingly shaped by digital technology.

- **Rome, Italy**, *Giovanni Giorgi's contribution to the rationalized system of units*, 1901–1902 #223 (54)
Dedicated **15 December 2021** – IEEE Italy Section

Giovanni Giorgi proposed rationalizing the equations of electromagnetism. His proposal added an electrical unit to the three mechanical units of measurement (meter, kilogram, second). While he was a professor at the University of Rome, the International Electrotechnical Commission adopted a version of Giorgi's system. His ideas formed the basis of the universally adopted International System (SI) of units, currently used in all fields of science and engineering.

In its November 2021 meeting, the IEEE Board of Directors has **revoked Milestone #46** (originally entitled *Marconi's early wireless experiments*, 1895, and later renamed to *Early Swiss wireless experiments*, 1897, with an updated citation), which was located in Salvan, Switzerland. The total number of dedicated Milestones in Region 8 is currently 53, with 55 plaques located in 17 Sections: Benelux (3), Croatia (1), Denmark (1), France (4), Germany (6), Israel (2), Italy (9), Norway (1), Poland (2), Russia (Northwest) (2), Serbia and Montenegro (1), South Africa (1), Spain (2), Sweden (1), Switzerland (2), UK and Ireland (16), 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 (#206) has a duplicate plaque in Germany.

In addition to the actual Milestones, there are 2 Special Citations: one in Serbia and Montenegro and one in Germany. 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

- Budapest, Hungary, *Budapest Metroline No. 1*, 1896; approved **24–11–2019**.
Dedication date not yet decided.
- Leiden, Netherlands, *String galvanometer to record a human electrocardiogram*, 1901–1905; approved **24–11–2019**.
Dedication planned for 8 April 2022.
- Eynsham, England, *Active shielding of superconducting magnets for MRI*, 1984–1989; approved **24–11–2019**.
Dedication planned for 16–17 June 2022.
- Manchester, England, *Manchester University "Baby" computer and its derivatives*, 1948–1951; approved **27–06–2021**.
Dedication planned for 20–21 June 2022.
- Manchester, England, *The Atlas computer and the invention of virtual memory*, 1957–1962; approved **27–06–2021**.
Dedication planned for 20–21 June 2022.

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 2021**, *How computer technologies and telecommunication change society and economy*, originally planned to take place in Moscow, Russia, was changed to an online meeting on the Zoom platform on 10–12 November 2021.
HISTELCON is a Region 8 flagship conference held every two years on the history of electrical engineering, electronics, computing, their applications, and their impact on humanity's social development. HISTELCON 2021 was already the seventh HISTELCON conference, with predecessors in Paris (2008), Madrid (2010), Pavia (2012), Tel-Aviv (2015), Kobe (2017, together with Region 10), and Glasgow (2019).
More information can be found on the conference website, available at <http://histelcon2021.org/>.
- The **proceedings of HISTELCON 1 through 6**, 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
- **HISTELCON 2023** is likely to take place in Florence, Italy, 7–9 September 2023 (in hybrid form).

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 IEEE Milestones in Region 8 (.xlsx)**; see also Section 9.2. 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.
- Scanned all the **old issues of IEEE Region 8 News and its predecessors** – 136 issues, 1092 pages, with a total size of about 0.7 GB – and put them on the Region 8 website, together with an index to news of individual Sections. These old issues contain lots of information about our Sections and may thus form a valuable source of information, especially for those Sections who want to fill the gaps in their history. To help Sections, an index has been created to direct Section leaders to the relevant pages in the issues 1–122 (December 1967 – May 1998) where news about their Section can be found.
- Collected all the available **Region 8 Committee meeting minutes** – roughly 1500 pages – and put them on the Region 8 website where they can be downloaded: 1962–1970 (.pdf), 1971–1983 (.pdf), 1984–1993 (.pdf), 1994–2009 (.pdf), and 2010–2020 (.pdf).
- 12-10-2021: Attended (online) the October Region 8 Member Activities team meeting.
- 12-10-2021: Attended (online) the October meeting of the ‘Future Thinking’ subcommittee of the IEEE History Committee.
- 23-10-2021: Attended the dedication ceremony of the IEEE Special Citation to the Heinz Nixdorf MuseumsForum (HNF) in Paderborn, Germany.
- 02-11-2021: Attended (online) the November meeting of the ‘Future Thinking’ subcommittee of the IEEE History Committee.
- 06/07-11-2021: Attended the November meeting of the IEEE Region 8 Committee and gave a presentation entitled “Using History Activities to engage members”.
- 10/12-11-2021: Attended (online) HISTELCON 2021, which took place in Moscow, Russia (in hybrid form).
- 21-01-2022: Attended (online) the (hybrid) IEEE Czechoslovakia Section Annual Meeting (2021) and gave a short presentation on the occasion of the Section’s 30th Anniversary (official formation date 1 August 1992).
- 01-02-2022: Attended (online) the February meeting of the IEEE History Committee as a Past Committee member and as the Region 8 liaison.
- 15-02-2022: Attended (online) the February Region 8 Member Activities team meeting.
- 08-03-2022: Attended (online) the March Region 8 Member Activities team meeting.

F. Interesting weblinks

- *A short history of IRE Region 9 / IEEE Region 8* – https://ethw.org/w/images/a/a6/R8_history.pdf (.pdf)
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A. Focal points for 2021

Note: Please refer to the previous report for the highly appreciated **actions by the 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.
- **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.
- **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.
- **A few minor focal points**
 - HISTELCON 2021, *How computer technologies and telecommunication change society and economy*, Moscow, Russia, 10–12 November 2021 (in hybrid form).
 - *History of IEEE since 1984* is a wiki webpage that is currently in progress.

B. Recent Milestone dedications in Region 8

Due to COVID-19, there were no dedications in 2020. The following dedications in 2021 were partly virtual and could be followed via live streaming.

- **Torino, Italy**, *Rotating fields and early induction motors*, 1885–1888 #212 (51)
Dedicated **21 January 2021** – IEEE Italy Section
Galileo Ferraris, professor at the Italian Industrial Museum (now Polytechnic) of Turin, conceived and demonstrated the principle of the rotating magnetic field. Ferraris' field, produced by two stationary coils with perpendicular axes, was driven by alternating currents phase-shifted by 90 degrees. Ferraris also constructed prototypes of two-phase AC motors. Rotating fields, polyphase currents, and their application to induction motors had a fundamental role in the electrification of the world.
- **Cascina, Pisa, Italy**, *Gravitational-wave antenna*, 1972–1989 #213 (52)
Dedicated **3 February 2021** – IEEE Italy Section
Initially developed from 1972 to 1989, the gravitational-wave antenna enabled detection of ripples in spacetime propagating at the speed of light, as predicted by Albert Einstein's 1916 Theory of General Relativity. Construction of the Virgo Gravitational-Wave Observatory commenced in 1997. In 2017, Virgo and two antennas located in the US launched the era of Multi-Messenger Astronomy with the coordinated detection of gravitational waves from a binary neutron star merger.
- **Agrate Brianza, Milano, Italy**, *Multiple silicon technologies on a chip*, 1985 #218 (53)
Dedicated **18 May 2021** – IEEE Italy Section
SGS (now STMicroelectronics) pioneered the super-integrated silicon-gate process combining Bipolar, CMOS, and DMOS (BCD) transistors in single chips for complex, power-demanding applications. The first BCD super-integrated circuit, named L6202, was capable of controlling up to 60V-5A at 300 kHz. Subsequent automotive, computer, and industrial applications extensively adopted this process technology, which enabled chip designers flexibly and reliably to combine power, analog, and digital signal processing.

- **Paderborn, Germany, *Special Citation: Heinz Nixdorf MuseumsForum*, 1996**
Dedicated **23 October 2021** – IEEE Germany Section

One of the largest computer museums in the world, the Heinz Nixdorf MuseumsForum presents 5000 years of computing history from the emergence of numbers and lettering circa 3000 B.C.E. to the modern digital age. Through presentations, workshops, seminars, and exhibitions, it has provided a broad audience with the insights and perspectives required to navigate a world that is increasingly shaped by digital technology.

The total number of dedicated Milestones in Region 8 is currently 53, with 55 plaques located in 17 Sections: Benelux (3), Croatia (1), Denmark (1), France (4), Germany (6), Israel (2), Italy (8), Norway (1), Poland (2), Russia (Northwest) (2), Serbia and Montenegro (1), South Africa (1), Spain (2), Sweden (1), Switzerland (3), UK and Ireland (16), 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 (#206) has a duplicate plaque in Germany.

In addition to the actual Milestones, there are 2 Special Citations: one in Serbia and Montenegro and one in Germany. 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. Approved Milestones in Region 8 – dedication dates to be decided

- Budapest, Hungary, *Budapest Metroline No. 1*, 1896; approved **24–11–2019**.
- Rome, Italy, *Giovanni Giorgi's contribution to the rationalized system of units*, 1901–1902; approved **24–11–2019**.
Dedication planned for 15 December 2021.
- Leiden, Netherlands, *String galvanometer to record a human electrocardiogram*, 1901–1905; approved **24–11–2019**.
Dedication planned for 8 April 2022.
- Eynsham, England, *Active shielding of superconducting magnets for MRI*, 1984–1989; approved **24–11–2019**.
Dedication planned for 16–17 June 2022.
- Manchester, England, *Manchester University "Baby" computer and its derivatives*, 1948–1951; approved **27–06–2021**.
Dedication planned for 20–21 June 2022.
- Manchester, England, *The Atlas computer and the invention of virtual memory*, 1957–1962; approved **27–06–2021**.
Dedication planned for 20–21 June 2022.

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. Upcoming events

- HISTELCON 2021, *How computer technologies and telecommunication change society and economy*, Moscow, Russia, 10–12 November 2021 (in hybrid form)
HISTELCON is a Region 8 flagship conference held every two years on the history of electrical engineering, electronics, computing, their applications, and their impact on humanity's social development. HISTELCON 2021 is already the seventh HISTELCON conference, with predecessors in Paris (2008), Madrid (2010), Pavia (2012), Tel-Aviv (2015), Kobe (2017, together with Region 10), and Glasgow (2019).
More information can be found on the conference website, available at <http://histelcon2021.org/>.

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 IEEE Milestones in Region 8** ([.xlsx](#)); see also Section 9.2. 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.
- Scanned all the **old issues of IEEE Region 8 News and its predecessors** – 136 issues, 1092 pages, with a total size of about 0.7 GB – and put them on the Region 8 website, together with an index to news of individual Sections. These old issues contain lots of information about our Sections and may thus form a valuable source of information, especially for those Sections who want to fill the gaps in their history. To help Sections, an index has been created to direct Section leaders to the relevant pages in the issues 1–122 (December 1967 – May 1998) where news about their Section can be found.
- Collected all the available **Region 8 Committee meeting minutes** – roughly 1500 pages – and put them on the Region 8 website where they can be downloaded: 1962–1970 ([.pdf](#)), 1971–1983 ([.pdf](#)), 1984–1993 ([.pdf](#)), 1994–2009 ([.pdf](#)), and 2010–2020 ([.pdf](#)).
- 16-03-2021: Attended (online) the joint Region 8 Life Members and History Activities subcommittees meeting, which was part of the March Region 8 meetings series.

- 20-03-2021: Attended (online) the March meeting of the IEEE Region 8 Committee.
- 21-03-2021: Attended (online) the March meeting of the IEEE Region 8 Committee.
- 23-03-2021: Attended (online) the March meeting of the IEEE History Committee as its treasurer.
- 05-04-2021: Attended (online) the April Region 8 Member Activities team meeting.
- 06-04-2021: Attended (online) the April meeting of the ‘Future Thinking’ subcommittee of the IEEE History Committee.
- 08-04-2021: Attended (online) the Region 8 Section Chairs and Life Members Subcommittee meeting as a guest.
- 03-05-2021: Attended (online) the May Region 8 Member Activities team meeting.
- 04-05-2021: Attended (online) the May meeting of the ‘Future Thinking’ subcommittee of the IEEE History Committee.
- 05-05-2021: Attended (online) the May meeting of the IEEE History Committee as its treasurer.
- 18-05-2021: Attended (online) the dedication of the Milestone ‘Multiple silicon technologies on a chip’ in Milano.
- 01-06-2021: Attended (online) the June meeting of the ‘Future Thinking’ subcommittee of the IEEE History Committee and gave a presentation entitled ‘(Best?) practices for Regions capturing their history’.
- 06-07-2021: Attended (online) the July meeting of the ‘Future Thinking’ subcommittee of the IEEE History Committee.
- 13-07-2021: Attended (online) the July Region 8 Member Activities team meeting.
- 02-08-2021: Attended (online) the August meeting of the IEEE History Committee as its treasurer.
- 24-08-2021: Attended (online) the August meeting of the ‘Future Thinking’ subcommittee of the IEEE History Committee.
- 07-09-2021: Attended (online) the September meeting of the ‘Future Thinking’ subcommittee of the IEEE History Committee.
- 06-10-2021: Attended (online) the October meeting of the IEEE History Committee as its treasurer.
- 12-10-2021: Attended (online) the October meeting of the ‘Future Thinking’ subcommittee of the IEEE History Committee.
- 23-10-2021: Attended the dedication ceremony of the IEEE Special Citation to the Heinz Nixdorf MuseumsForum (HNF) in Paderborn, Germany.

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://iecemilestones.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 History Activities webpage and the History webpage.

Table of contents of the Region 8 history book ‘A short history of IRE Region 9 / IEEE Region 8’

- Preliminary steps towards and the early history of a new Region
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 - IRE Region in Europe – Bruce B. Barrow
 - A Region’s ‘Birth Certificate’
 - The start of Region 8 and its Sections – Robert C. Winton
 - IRE/AIEE Merger – Bruce B. Barrow
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 - Minutes of the early IEEE Region 8 Committee meetings

History Activities Coordinator

Martin J. Bastiaans

The History Activities Coordinator is assisted by Tony Davies, Past History Activities Coordinator (2013–2020) and Mislav Grgić, current IEEE History Committee member (2021–2022).

A. Focal points for 2021

Note: Items in red require actions by Sections.

- **IEEE Milestones**, see http://ieemilestones.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 game ‘Pokémon GO’ uses so-called Pokéstops where players can get their necessary game tools. Pokéstops are created at landmarks, with the possibility to provide information about the landmark. A Pokéstop created at the site of a Milestone may thus draw more attention to it. **Is it an idea to create such a Pokéstop at the Milestone location(s) in your Section?**
- **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.
 - 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.**
 - **A few minor focal points**
 - HISTELCON 2021, *How computer technologies and telecommunication change society and economy*, Moscow, Russia, 18–20 August 2021. **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

Due to COVID-19, there were no dedications in 2020. The following dedications in 2021 were partly virtual and could be followed via live streaming.

- **Torino, Italy, *Rotating fields and early induction motors*, 1885–1888** #212 (51)
Dedicated **21 January 2021** – IEEE Italy Section
Galileo Ferraris, professor at the Italian Industrial Museum (now Polytechnic) of Turin, conceived and demonstrated the principle of the rotating magnetic field. Ferraris' field, produced by two stationary coils with perpendicular axes, was driven by alternating currents phase-shifted by 90 degrees. Ferraris also constructed prototypes of two-phase AC motors. Rotating fields, polyphase currents, and their application to induction motors had a fundamental role in the electrification of the world.
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C. Approved Milestones in Region 8 – dedication dates to be decided

- Budapest, Hungary, *Budapest Metroline No. 1*, 1896; approved **24–11–2019**
- Rome, Italy, *Giovanni Giorgi's contribution to the rationalized system of units*, 1901–1902; approved **24–11–2019**
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- Eynsham, England, *Active shielding of superconducting magnets for MRI*, 1984–1989; approved **24–11–2019**
- Milano, Italy, *Multiple silicon technologies on a chip*, 1985; approved **30–09–2020**

D. Upcoming events

- HISTELCON 2021, *How computer technologies and telecommunication change society and economy*, Moscow, Russia, 18–20 August 2021
HISTELCON is a Region 8 flagship conference held every two years on the history of electrical engineering, electronics, computing, their applications, and their impact on humanity's social development. HISTELCON 2021 is already the seventh HISTELCON conference, with predecessors in Paris (2008), Madrid (2010), Pavia (2012), Tel-Aviv (2015), Kobe (2017, together with Region 10), and Glasgow (2019).
More information can be found on the conference website, available at <http://histelcon2021.org/>.
Abstract submission deadline: 15 April 2021 – Full paper submission deadline: 1 May 2021

E. Activities of the History Activities Coordinator

- Throughout: Worked on the Region 8 history book.
- Throughout: Worked on new versions of the History Activities webpage and the History webpage on the Region 8 website; **both pages have undergone a complete revamping.**
- 14-01-2021: Attended (online) the History Activities kick-off meeting with Sara Barros, Region 8 Vice Chair Member Activities, and Tony Davies.
- 14-01-2021: Attended (online) the January IEEE History Committee meeting as its treasurer.
- 21-01-2021: Attended (online) the dedication of the Milestone 'Rotating fields and early induction motors' in Torino.
- 27-01-2021: Attended (online) the January meeting of the 'Future Thinking' subcommittee of the IEEE History Committee.
- 03-02-2021: Attended (online) the dedication of the Milestone 'Gravitational-wave antenna' in Cascina, Pisa.
- 06-02-2021: Sent an email message to the (Sub-)Section Chairs, requesting information about history officers in their units.
- 09-02-2021: Attended (online) the February Region 8 Member Activities team meeting.
- 23-02-2021: Attended (online) the February Region 8 Life Members Affinity Group Chairs meeting as a guest.
- 02-03-2021: Attended (online) the March meeting of the 'Future Thinking' subcommittee of the IEEE History Committee.
- 10-03-2021: Attended (online) the March Region 8 Member Activities team meeting.

F. Interesting weblinks

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