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), 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**
  - *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)
- 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'

- 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
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- 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
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  - Medal of Honor
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  - Presidents' Change the World Competition
  - Member and Geographic Activities Board Awards
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  - Joint Awards Established with National Societies
  - Region 8 Awards
  - Outstanding Life Members Affinity Groups / IEEE Life Members Affinity Group Achievement Award
- 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