

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.
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- 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://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.

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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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
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 - 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

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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’

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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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The total number of dedicated Milestones in Region 8 is currently 52, with 54 plaques located in 17 Sections: Benelux (3), Croatia (1), Denmark (1), France (4), Germany (6), Israel (2), Italy (7), 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.

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**
- Leiden, Netherlands, *String galvanometer to record a human electrocardiogram*, 1901–1905; approved **24–11–2019**
- 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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