

History Activities Coordinator

Anthony Davies

Goals

Primary activity is directed towards recognition of technology achievements in Region 8 - of which History Milestones are a major part. These are a publicity opportunity for IEEE, and a way to fulfill obligations towards students and young professionals, who need to understand past achievements in order to "invent and develop" the future. Secondary activity is encouraging preservation and availability of IEEE historical records (e.g. of Sections, Chapters, etc.).

Recent activities

- 1) When the Public-Key Cryptography Milestone was installed at GCHQ, Cheltenham in 2010, it was planned that a duplicate would be installed in a museum in Cheltenham, which would enable public to see it (not the case for the one in GCHQ, which is a closed environment for obvious security reasons). At last, the duplicate plaque has just been installed in the museum.
- 2) A multiple-author book on the History of Circuits and Systems was published in May 2016, with Franco Maloberti (IEEE CAS Society President) and myself as the two co-editors. It covers the history of the IEEE CAS Society, the history of the subject area, and In Memoriam' tributes to many of the well-known contributors to the subject.
- 3) Progress is continuing with plans for a technical symposium on 27th January 2017 at the Royal Institution of Great Britain about the Television inventions of John Logie Baird, as a commemoration of the first public demonstration of Television nearby in Frith Street in January 1926 by Baird. It is hoped that an IEEE History Milestone for the event will be approved and ready for unveiling by then.
- 4) The existing IEEE History Plaques in Oban (TAT-1 cable) and Cornwall (Poldhu and Goonhilly) are currently no longer on display, and this is still an unresolved issue.
- 5) Now that the IET building at Savoy Place in London has reopened after over two years of major refurbishment, the replacement for their library provides access to Archives and History of Technology books to visitors, both members of IET and non-members. An extended version of what I wrote for the IEEE History Newsletter is being published in the IET's History Newsletter: Remembering and Understanding our Engineering History: What to see whilst Travelling" - about various non-IEEE History Plaques which can be seen around the UK.
- 6) Newly dedicated History Milestones include:
 - 6.1 Enrico Fermi's Major Contribution to Semiconductor Statistics, 1924-1926, Italy
 - 6.2 Germany's First Broadcast Transmission from the Radio Station Königs Wusterhausen, 1920
- 7) Proposals for History Milestones which are being actively pursued in the UK and Ireland Section include:
 - 7.1 Amorphous Silicon Switches for flat panel displays (Dundee University).
 - 7.2 LEO Computer
 - 7.3 EMI CAT Scanner.
- 8) Some other proposals in hand are:
 - 8.1 Otto Lehmann's work on liquid crystals at Karlsruhe: First Exploration and Proof of Liquid Crystals, 1889".
 - 8.2 Dadda's Multiplier, Italy
 - 8.3 Alexanderson alternator and multi-tuned antenna at Varberg Radio SAQ, Grimeton, Sweden
 - 8.4 Discovery of Superconductivity by Kammerlingh Onnes, 1911 (Univ. of Leiden, Netherlands)
 - 8.5 Development of the Erbium-Doped Optical Fiber Amplifier (Univ. of Southampton, UK)
 - 8.6 Gotland HVDC Link (Sweden)Several plans for Milestones in Ukraine are under consideration and support funding was offered by the IEEE Foundation.
- 9) A conference on 'Telecommunications in the Aftermath of World War 1: Civilian and Military Perspectives' was held in London on 10th August 2016, at which I presented a paper entitled The Inter-war Years: A comparison of British Navy, Army and Air Force Telecommunications Developments'.
- 10) Various events are being held around the UK to commemorate the 150th anniversary of the Great Eastern steamship's successful cable laying from Valencia, Ireland, across the Atlantic, to Newfoundland, which established fast communication by telegraphy between the continents.

Outlook

A need remains for more volunteers from around Region 8 to assist with history activities, and particularly in those parts of the Region where there is a shortage of IEEE recognition for technology innovations which took place there. They need to be willing to spend actual time on progressing these activities (and not just report occasionally to a committee)

Concerns and Problems

It is not difficult to identify many of the very many achievements and inventions in IEEE fields which have taken place within Region 8 territory and to find well-informed persons who know of or can investigate the details. However, it is difficult to find 'champions' who will see proposals thorough the long stages from submission to final approval by IEEE and an actual unveiling ceremony. It is also essential to ensure sure that claims are valid, and that competing and sometimes concurrent claims are rigorously evaluated. Realizing that not just occasional attention must be paid to history activities, the Italy Section has been appointed a history committee which has already started to work on a Milestone proposal that may be soon submitted, i.e. "Pacinotti's ring armature of an early dynamo machine, 1863" and is planning the unveiling ceremony for the proposed "Dadda's multiplier " Milestone (mentioned above). It is also the intention of the Italy Section to revitalize activities for

Life Members by inviting them, in particular, to get involved in history activities. Similar initiatives by other Sections are recommended.

R8 History Activities Subcommittee

- Anthony C Davies (UK and Ireland Section)
- Antonio Perez-Yuste (Spain Section)
- Antonio Savini (Italy Section)