St. John’s is one of the oldest and most easterly cities in North America. It is in the Avalon region of Newfoundland, and there are dozens of things to see and do. Here are some suggestions:

- **Colonial Building**…The former Newfoundland Legislature prior to joining Canada. Special Marconi exhibit to mark the 100th anniversary of his achievement.
- **Signal Hill National Historic Site**…A spectacular view of St. John’s, Marconi received the first transatlantic wireless signal here in 1901.
- **Titanic & Iceberg Interpretation Centre**…Travel back to 1912 to the most famous luxury ship ever built. Includes a Marconi display.
- **Admiralty House Museum & Archives** …Former British Admiralty Wireless Station, now a communications museum.
- **Cape Spear National Historic Site**…The home of the oldest surviving lighthouse in Newfoundland, dating back to 1836.
- **Cape Race Lighthouse**…Began operating in 1856. In 1912 radio operators here received SOS signals from the Titanic.
- **Heart’s Content Cable Station Provincial Historic Site**…After a failure of two earlier attempts, a permanent transatlantic telegraph cable was landed here in 1866.
- **Victoria Hydro Electric Development** …The original turbines and generators offer a noteworthy opportunity to view a display of the early stages of hydroelectric power generation.

The mission of the IEEE History Center is to preserve, research, and promote the history of information and electrical technologies. The Center maintains many useful resources for the engineer, for the historian of technology, and for anyone interested in the development of electrical and computer engineering and their role in modern society.

IEEE History Center
Rutgers University

Student History Paper Contest is sponsored by:

The Awards Luncheon is sponsored by:

**Event Locations:**
- **Breakfasts:** Hatcher Dining Hall
- **Coffee Breaks & Lunches:** Junior Common Room, R. Gushue Hall
- **All Sessions:** Rm. EN-2006, Engineering and Applied Sciences Bldg. (Poster Session: Engineering Lobby)
Wednesday, 25 July

8:00 – 9:00 Breakfast

9:00 – 9:15 Welcome and Introduction to the Conference
- Martha Sloan, Chair IEEE History Committee
- Michael Geselowitz, Director IEEE History Center

- From the Cutting Edge to the Conservative Trough: The Telegraphy Business from the 1850s to the 1920s - Bernard Finn
- Partners in Crime: The Telegraph Industry, Finance Capitalism, and Organized Gambling, 1870-1920 - David Hochfelder
- Several Paths Leading to the Use of Small Earth Stations for Satellite Communications Systems - Robert M. Walp

10:30 – 11:00 Coffee break

11:00 – 12:15 Session 2: Technology and Business Strategy, Part 2 - Chair: W. Bernard Carlson
- Turning the Clock Speed: Corning and the Fiber Optics Revolution - Margaret Graham
- History of Developments of Vapor-Phase Axial Deposition for Optical-Fiber Fabrication and Pioneering Work of Silica-Based Planar Lightwave Circuits - Tatsuo Izawa
- One World, One Telephone, One Love: Iridium, A Post-Cold War, Postmodern, Global-A-Go-Go Tale - Martin Collins

12:15 – 1:15 Lunch

1:15 – 2:30 Session 3: Submarine Telephony
Chair: Frederik Nebeker
- The First Transatlantic Telephone Cables - Lenore Symons
- Reminiscences of TAT-1 - Jeremiah F. Hayes
- Milestones in Submarine Telecommunications - Robert Chapuis

2:30 – 3:00 Coffee break

3:00 – 4:15 Session 4: Politics and Communications Technology - Chair: David Hochfelder
- Communications in Troubled Times: the Case of Ireland and Newfoundland - Donard de Cogan
- Switching in a National Relation: Public-Private Cooperation in the Development of Telephony Technology in Postwar Sweden - Mats Fridlund
- Contention Control in Multi-Access Resource Systems - Gertrude Levine

Thursday, 26 July

8:00 – 9:00 Breakfast

9:00 – 10:15 Session 5: Assessing Stature in the History of Telecommunications, Part 1 - Chair: Martha Sloan
- Cooke and Wheatstone, and Morse: A Comparative View - Brian Bowers
- The First Transatlantic Wireless Telegraphy: Collaboration or Competition between Marconi and Fleming? - Sungook Hong
- Promotion versus Manufacturing: Lessons from the Career of Nikola Tesla, 1885-1915 - W. Bernard Carlson

10:15 – 10:45 Coffee break

10:45 – 12:00 Session 6: Assessing Stature in the History of Telecommunications, Part 2 - Chair: David Morton
- Judge Harold H. Greene: A Pivotal Judicial Figure in Telecommunications Policy and His Legacy - Bill Yurek
- Pushing Technology: David Sarnoff and Wireless Communications, 1911-1921 - Alexander B. Magoun
- Peter Goldmark: Technological Visionary - Karen J. Freeze

12:00 – 1:00 Lunch

1:00 – 2:15 Session 7: Poster Session with Presentations
Chair: Wallace S. Read
IEEE Student History Paper Competition winners:
- Rodrigo Carvalho-Fernandini, Catholic University of Valparaiso, Chile (Region 9) "The History of CTC and Entel: Precursors of Telecommunications in Chile"
- Cornelia Connolly, University of Limerick, Ireland (Region 8) "The History of Telecommunications in Ireland"
- Rahul Malik, Nanyang Technological Univ., Singapore (Region 10) "Spread Spectrum – Secret Military Tech. to 3G"
- Jakob Nebeker, University of Illinois, IL, USA (Region 4) "Science and Technology: Lord Kelvin's Atlantic Cable"
- Keiko Tanaka, University of Washington, Seattle, WA, USA (Region 6) "The Mobile Communications Environment in the European Union: Past, Present, and Future"

2:15 – 2:45 Coffee break

2:45 – 4:00 Session 8: Microelectronics and Telecommunications - Chair: Earl E. Swartzlander, Jr.
- The Telephone Answering Machine as a Reflection of Modern Society, 1877-2001 - David Morton
- Alan Kay: Transforming the Computer into a Communication Medium - Susan Barnes

Friday, 27 July

8:00 – 9:00 Breakfast

9:00 – 10:15 Session 9: Science, Mathematics, and Telecommunications - Chair: Bernard Finn
- The “American Method”: The 19th-Century Telegraphic Revolution in Finding Longitude - Trudy E. Bell
- Inventing the ‘Black Box’: Mathematics as a Neglected Enabling Technology in the History of Communications Engineering - Chris Bissell
- The Recent History of Secure Voice Communications - Earl E. Swartzlander, Jr.

10:15 – 10:45 Coffee break

10:45 – 12:00 Session 10: The Internet and Earlier Telecommunications Networks
Chair: Michael Geselowitz
- Content Versus Connectivity in Telecommunications History - Andrew Odlyzko
- The Telegraph of Claude Chappe: An Optical Telecommunication Network for the 18th Century - Jean-Marie Dilhac
- Weaving the Once and Future Web: Comparative Telecommunications History in Public Space - Michael Sappol & Hunter Crowther-Heyck

12:15 – 1:30 Luncheon
Speaker: Arthur Maxwell House, Lieutenant Governor of Newfoundland and Labrador

2:00 - ca. 10:00 Excursion

Today In History: Friday, 27 July 2001 marks the 135th Anniversary of the arrival of the cable-laying ship the Great Eastern on the shores of Trinity Bay, Newfoundland. An excursion to the site of the cable landing includes round-trip coach transportation to Hearts Content, a visit to the cable museum, a tour of the village, and a catered seafood dinner and Newfoundland music. We will depart from St. John’s at 2:00 pm, and return approximately 10:00 pm.