On IEEE North Jersey Section's 60th Anniversary

Russell Pepe, Chairman, rcpepe@ieee.org

invites you to attend the dedication ceremony of the following

IEEE Milestones in Electrical Engineering and Computing

BELL LABS – WIRELESS AND SATELLITE COMMUNICATIONS, 1925-1983

Bell Telephone Laboratories, Inc. introduced: the first radio astronomical observations (1933), Smith Chart (1939), early mobile phone service (1946), cellular wireless concept (1947), TDX Microwave Radio System (1947), TD Transcontinental Microwave Radio System (1950), Telstar - first active communications satellite (1962), first observation of the cosmic background radiation (1964), first U.S. cellular wireless system (1978), digital cellular technology (1980), and the AR6A SSB-SC Microwave System (1981).

BELL LABS - DIGITAL SIGNAL PROCESSING AND COMPUTING, 1925-1983

Bell Telephone Laboratories, Inc. introduced: the first electronic speech synthesizer (1936), first binary digital computer (1939), first long-distance computing (1940), digitized and synthesized music (1957), digital computer art (1962), text-to-speech synthesis (1962), UNIX operating system (1969), the C and S languages (1972, 1976), first single-chip digital signal processor (1979), single-chip 32-bit microprocessor (1980), 5ESS Digital Switching System (1982), and C++ language (1983).

BELL LABS - SOLID STATE AND OPTICAL DEVICES, 1925-1983

Bell Telephone Laboratories, Inc. introduced: the point-contact and junction transistors (1947, 1948), zone refining (1951), silicon epitaxy (1951), ion implantation (1952), solar cell (1954), oxide masking (1955), laser concept (1958), MOSFET (1959), foil electret microphone (1962), CO_2 laser (1964), silicon gate (1966), heterostructure semiconductor laser (1968), charge coupled device (1969), theory of disordered states of matter (1977), heterojunction phototransistor (1980), and VLSI CMOS technology and circuits (1981).

BELL LABS - COMMUNICATIONS THEORY AND NETWORKS, 1925-1983

Bell Telephone Laboratories, Inc. introduced: type A facsimile service (1925), first long-distance television transmission (1927), negative feedback amplifier (1927), first stereo sound transmission (1933), Hamming error-correcting codes (1948), information theory (1948), direct distance dialing (1951), TAT-1 transatlantic telephone cable (1956), T1 transmission system (1962), touch-tone dialing (1963), 1ESS electronic switch (1965), wide area telephone 800 service (1965), and first U.S. commercial fiber-optic system (1977).

On Thursday, December 18th, 2014

Dedication Ceremony from 1:30 to 4:00 P.M.

Please arrive between 1:00 to 1:15 P.M at Bldg 6 Lobby

Oak Conference Room

Alcatel-Lucent, Bell Labs, Building 6
600 Mountain Avenue
Murray Hill, NJ 07974
908-582-8500

Agenda

1:30 P.M. - **<u>Welcome Introductory Remarks & Unveiling Plaques</u>**

by Dr. Marcus Weldon, President, Alcatel-Lucent Bell Labs, Dr. Peter W. Staecker, Past IEEE President, and other IEEE Region, Area, and Section representatives.

Photos taken and Refreshments served

2:00 to 4:00 P.M. – **<u>Four Technical Talks with Q/A period</u>**

- Communications Theory & Networks
- Wireless & Satellite Communications
- Digital Signal Processing & Computing
- Solid State & Optical Devices

Please register no later than 5:00 P.M. on Friday, December 12th at:

https://meetings.vtools.ieee.org/m/29811

For further information, contact:

Dr. Adriaan J. van Wijngaarden, at avw@ieee.org

or Howard Leach at h.leach@ieee.org or 973-540-1283

Directions to Alcatel-Lucent Bell Labs, 600 Mountain Ave, Murray Hill, NJ 07974

Murray Hill is a community within the New Providence postal area.

If you live some distance from Murray Hill, you will probably access the site from Route 78 on the south. Whether you approach from the east or west, take Route 78 Exit 43,

proceed north toward New Providence/Berkeley Heights on CR-655/Diamond Hill Road,

take a right onto CR-622/Mountain Ave (Mack-Cali Bldg on corner),

go to the second light and turn right into the main entrance,

park in the one of the north lots where indicated, and

proceed to the Bldg 6 Lobby to register and to be escorted to the Oak Conference Room.