

# The Institute of Electrical and Electronics Engineers (IEEE)

## **Galveston Bay Section Monthly Meeting**

Organized by Joint Societies Chapter and Young Professional Group



## July 21st 2016 (Thursday) Luncheon Meeting

TOPIC: "MUMPS Will Save Medical Records"

Speaker: Paul Frenger, MD

#### PRESENTATION:

The adoption of electronic health records (EHR) in the US was mandated by the HITECH Act of 2009. Unfortunately, the benefits of EHR have been foiled by a failure to achieve the necessary data exchange between currently incompatible vendor products. The author reviews early attempts at EHR dating back to 1968, and new systems such as VistA and Epic (all are written in the MUMPS programming language). He asserts that this lack of EHR interoperability can be reversed using a MUMPS-based universal "back end" database engine, which vendors may link to their proprietary "front end" user interfaces. This back end is the public domain Veterans Administration system, VistA. Dr. Frenger illustrates these issues and discusses the unique role of MUMPS, sharing his insights as a physician, EHR developer and current user. The author has recently presented an EHR user interface design employing real-time video recording, speech recognition, artificial intelligence and automated chart creation.

#### **SPEAKER:**

Paul Frenger is a senior member of IEEE and a practicing physician who has worked with computers since 1976. He has contributed over 200 original articles to the professional literature and has 3 computer patents. He was editor of the ACM SIGForth Newsletter (5 years) and associate editor for ACM Sigplan Notices (13 years). He is active in artificial intelligence, robotics, prosthetics, bioengineering and green technologies. Dr. Frenger helped US Air Force Research Labs scientists to develop testing systems for non-lethal weapons, 2004-2005. He has been Chair of the Houston Chapter of the IEEE Computational Intelligence Society since 2007. A former US Air Force Lt. Colonel, Dr. Frenger's memberships include: the Rocky Mountain Bioengineering Symposium; the Canadian Medical and Biological Engineering Society; the Association for Computing Machinery; the Institute for Electrical and Electronic Engineers; the Engineering in Medicine and Biology Society; the International Society of Automation; MENSA and the Triple Nine Society. He received the Air Force Commendation Medal (1978), two service awards from ACM (1992, 1999), one from IEEE (2008) and the Rocky Mountain Bioengineering Symposium President's Award (2004). His computer and automation consulting company, A Working Hypothesis, Inc., was chartered in 1982.

### Gilruth Recreation Center NASA-JSC, Discovery Room (Downstairs)

Free parking. No security processing required. Easy drive in off Space Center Blvd. See website below for map. Interested non-IEEE engineers, technicians, scientists, IEEE Members and guests alike are welcome!

11:30 AM - Light Lunch with reservation (\$10.00 donation)
12:00 PM - 1:00 PM - Program and Q&A

Please RSVP Before Noon on Monday, July 19th, 2016

Number of lunches is limited. Please reserve early

Reservations for lunch or to attend this meeting should be made by email to:

D.K.Rutishauser@ieee.org

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