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THE AUDIO ENGINEERING SOCIETY BULLETIN



MAY 2009

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**AES Toronto appreciates
the continuing support of
RYERSON UNIVERSITY**

THIS MONTH: TWO MEETINGS

Presentation

ABC's of In-Ear Monitoring

Marty Garcia, Future Sonics

date
time
where

Wednesday, 20 May 2009

7:00 PM

RCC 359, Rogers Communications Building

80 Gould Street, Toronto, ON

corner of Gould and Church, east of Yonge St
(Dundas Subway)

For parking info and map, goto www.ryerson.ca/parking/

Pre-Meeting "Dutch Treat" dinner 5:00 pm at the Pickle Barrel
(corner of Edward and Yonge in the Atrium)

SEE PAGE TWO FOR DETAILS

Presentation

How To Avoid Digital Jitter

Morten Lave, TC Applied Technologies

date
time
where

Tuesday, 26 May 2009

7:00 PM

Eaton Theatre, Ryerson University

RCC 204, Rogers Communications Building

80 Gould Street, Toronto, ON

corner of Gould and Church, east of Yonge St
(Dundas Subway)

For parking info and map, goto www.ryerson.ca/parking/

Pre-Meeting "Dutch Treat" dinner 5:00 pm at the Pickle Barrel
(corner of Edward and Yonge in the Atrium)

WE ARE ACTIVELY SEEKING NOMINATIONS FOR NEW EXECUTIVE MEMBERS FOR 2009/2010.

Contact any of our exec, or email us at torontoaes@torontoaes.org

PLEASE POST - MEMBERS AND GUESTS WELCOME

In Ear Monitoring

Come join the Toronto section of the AES for a very special bonus meeting; an evening with Future Sonics' founder and President, Marty Garcia.

He will be discussing a wide range of topics including the origin and development of in-ear monitors, overall stage monitoring, client relations and artist psychology, changes to live sound production over the past 3 decades, and anything else that the audience wishes to ask him. It promises to be a fun, interesting and informative evening.

The meeting will be conducted in an interactive interview style, with questions from the floor being highly encouraged and with Marty being interviewed by Toronto AES executive member and live sound engineer Keith Gordon.

Marty Garcia, Founder/President, Future Sonics

Marty Garcia is founder and President of Future Sonics, the award-winning innovator of the original professional custom and universal fit earphones for personal monitoring. Over the past 20 years, Marty has developed a wide range of products for the musician's ear, beginning when he was working with Todd Rundgren.

Marty was trying to address the issues of vocal fatigue while touring in a wide range of venue sizes. Todd wanted the sound 'in' his head...and Marty was on a roll from there.

Garcia developed the original earpieces by using a gel-based denture adhesive and various types of earbud-type drivers - eventually and literally going through thousands at a time for the right quality - until realizing that he had stumbled onto something that could be very effective when properly used. He developed proprietary transducers and custom casings with such strong success that he sold his production company at that time and started Future Sonics in order to focus on the Ear Monitors® brand exclusively.

In addition to their designs and custom work, the company also offers complete client services and consulting worldwide to a client list that is literally a "who's who" of the entertainment business including U2, Steve Miller, Shania Twain, Reba McEntire, Gloria Estefan and Phil Collins.

How to Avoid Digital Jitter

This meeting will be a practical exploration of digital jitter, what are the symptoms and how do you avoid them? Is the digital source responsible for the problem or is it the sync device? Morten Lave, CEO and Managing Director of TC Applied Technologies, will talk a little about the history of jitter and the work of some of the leading researchers in this area, such as Julian Dunn, and their results.

He will also clarify two distinct results of jitter; jitter which prevents your AES receiver from locking, and jitter which affects your sound quality and stereo image etc. A few problem areas will be identified. While new clocking technologies solve the AES 3 receiver problem, we now have to deal with asynchronous networks such as Firewire, USB, AVB and ATM. Jitter here is typically of an order of magnitude higher than that of AES 3.

Morten Lave, CEO/Managing Director, TC Applied Technologies

Morten Lave, CEO/Managing Director of TC Applied Technologies is an expert in digital and analog design, IC design, firmware and software design and digital signal processing. As a teenager, he developed a digitally controlled analog guitar effects processor around a Zilog Z80 with a friend. The unit featured parametric EQs, chorus/flanger, compressor and mixer. It even had a connector for VCA control of the guitar amp - the system provided the user with 64 presets and a custom foot controller. It was a DIY project that set the pace for a successful career spanning decades.

He received his master's degree in computer science from Aarhus University in Denmark in 1990 after completing a bachelor's degree in physics. From 1989, he was employed at TC Electronic in a small R&D department; he implemented all software, firmware and DSP code for all TC Electronic products released in the first half of 1990s -- including TC6032, M5000, M2000 and Finalizer.

As TC Group expanded, so did its development department; in 1995 he became the R&D manager for the software and chip department that would grow to 40 strong before he left the company in 2003 to set up TC Applied Technologies. From 1999 to 2003, Morten also served on the Board of Directors for TC Group. Despite his managerial duties, he continued to be heavily involved in code writing and architecture design; both have always been his passion.

Since 2003, Morten has served as CEO and managing director of TC Applied Technologies, a fab-less semiconductor company focusing primarily on the development and delivery of IEEE1394 (FireWire) semiconductors and supporting A/V networking technologies for the professional and consumer electronics sectors.