



SEPT 2010

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NEWS

RF harvesting from ambient sources

Researchers at Intel, Seattle, have demonstrated harvesting RF power from a TV transmission tower to power a commercially available thermometer/hygrometer with LCD display. From a balcony at the Intel Research Laboratory in Seattle the researchers harvested RF power from the KING-TV tower at a distance of 4.1km using a standard television aerial. With the antenna manually pointed toward the transmission tower, the ambient RF harvesting system was then attached to the battery terminals of a commercially available indoor/outdoor temperature and humidity meter with an LCD display which is normally powered by a 1.5V AAA battery. The researchers found that the device function was normal using power harvested from the tower and that the display was as good as when the system was powered by a battery. The voltage was found to drop when the antenna was directed away from the tower.

With a different approach of deliberately sending out an interrogatory signal, Intel researchers have demonstrated the WISP (Wireless Identification and Sensing Platform). WISPs are not really energy harvesting because they do not employ preexisting ambient energy. They have the capabilities of RFID tags, but also support sensing and computing. Like any passive RFID tag, WISP is powered and read by a standard off-the-shelf RFID reader, harvesting the power it uses from the reader's emitted radio signals. WISPs have been used to sense quantities such as light, temperature, acceleration, strain, liquid level, and to investigate embedded security. Intel predicts the next phase of WISP work will involve the interaction of many WISPs resulting in a new battery-free form of wireless sensor networking. With RFID technology, the tag and the tag reader have to be in very close proximity but with the technique described above the weather station can get its power from a TV antenna pointed at a local TV station antenna that is 4km away.

Powercast has also developed so called Powerharvester Modules which are high efficiency RF energy harvesting devices that convert received RF energy into DC power. Powercast is a radio frequency that is transmitted over a small area, and its energy is harvested wirelessly to power to small devices like cell phones. A feature of the receiver is that, while the transmitter is highly focused in the power range it broadcasts (either in the 900MHz or 2.4GHz bands); the receiver can pick up and convert any RF energy regardless of frequency. Batteries or other energy storage devices can be recharged in close proximity or remotely, or low power devices can be driven directly from the received power.

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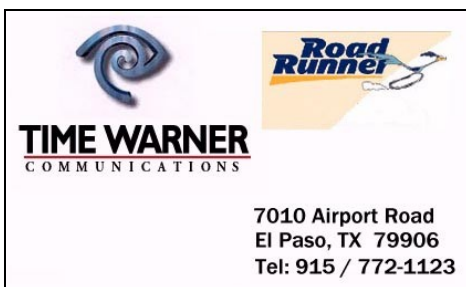
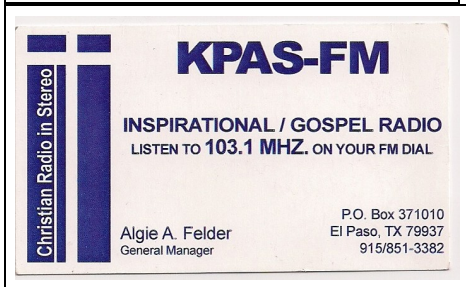
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STEVE H. SCHOTT

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NEWS CONTINUES IN PAGE 2



RF harvesting from ambient sources has great potential to impact on the cellular phone industry and the portable electronic device industry as a whole.

Bottom image: Intel's demonstration aerial and thermometer/hygrometer.

Source: Crunchgear

For more attend: [Energy Harvesting and Storage Europe 2009](#)

Also read: [Energy Harvesting and Storage for Electronic Devices 2009-2019](#)



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EL PASO, TX CHAPTER 38 MEETING MINUTE
DATE **8/10/2010** LOCATION: **CLEAR CHANNEL SITE**

MEETING CALLED TO ORDER: 7:18 PM, BY ANTONIO CASTRO, THERE WERE 17 MEMBERS AND GUESTS IN ATTENDANCE.

REPORT OF THE SECRETARY: MINUTES ACCEPTED AS POSTED IN THE NEWSLETTER BY WARREN REEVES .

REPORT OF THE TREASURER: CURRENT BALANCE OF \$ 7,606.71, CHECK WROTE FOR JESUS OMAR ROJAS, SCHOOLARSHIP RECIPIENT FOR THE AMMOUNT OF \$ 1,000.00 AND ADDED MEMBERSHIP OF \$ 12.00 FROM JAIME MARTINEZ, ACCEPTED BY ENRIQUE LOPEZ.

REPORT OF THE CERTIFICATION COMMITTEE: DON BOHRER FOR THE CNBT ON THURSDAY AUGUST 12th, DAVID HALPERING WILL PROCTOR

REPORT OF THE MEMBERSHIP COMMITTEE: INVITED ZARCO ELECTRONIC FOR SUSTAINING MEMBER

REPORT OF THE FREQUENCY COORDINATOR COMMITTEE: WARREN REEVES REPORTED THAT KVIA-TV IS APPLYING FOR STL AND ICR IN THE DIGITAL WORLD, 7 GHz, 64 QUAM

REPORT OF THE SCHOLARSHIP COMMITTEE: JESUS OMAR ROJAS RECEIVED A CHECK FOR \$ 1,000.00 FOR SCHOOLARSHIP. NEXT MONTH IT WILL BE PRESENTED THE SECOND SCHOOLARSHIP TO BENJAMIN ZAMORA.

REPORT OF THE WEB SITE COMMITTEE : UPDATED DAY BY NORBERT MILES.

REPORT OF THE EAS CHAIRMAN : 2 MONTHLY TEST WERE RECEIVED AND FORWARDED.

REPORT OF THE PROGRAM COMMITTEE: ZARCO ELECTRONIC MADE A POWER POINT PRESENTATION AND REPRESENTED BY JOSE MATA,, DAVID CORELLA AND ALEX ARZABALA. INVITED DAVID GERETY FROM DX2BROADCAST FOR OCTOBER.

UNFINISHED BUSINESS: PAUL TERRY INFORMED ABOUT COMANCHE PEAK: PAINT JOB IS GOING WELL. NO MAJOR REPORT.

NEW BUSINESS OR ANY ITEMS FOR THE CHAPTER INTEREST: OUR PICK-NIC WILL BE HELD AT WARRREN REEVES RESIDENCE. DATE TO BE ANNOUNCED. —OWEN SMITH, FROM KDBC/KTSM ACCEPTED THE POSITION OF CHIEF ENGINEER FOR KSCE-TV– ..CONGRATULATIONS OWEN AND GRACE.

NEXT MEETING DATE AND LOCATION: SEPTEMBER 14 @ KVIA CH-7 AT NOON

MEEETING ADJOURNED: 7:45 PM ACCEPTED BY DON BOHRER

LAST MINUTE NEWS: MEXICO TO SWITCH FROM ANALOG TO DIGITAL TELEVISION BY THE END OF 2015, AND STARTING THE CONVERSION IN 2011, WITH THE ADOPTION OF INTERNATIONAL STANDARDS.

PRESIDENTE CALDERON SAID ON HIS STATE OF THE UNION REPORT LAST SEPTEMBER 1ST, 2010

SEPTEMBER PROGRAM

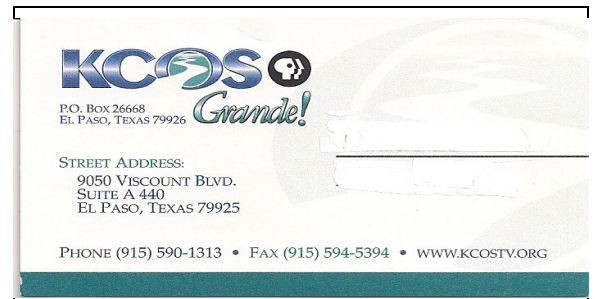
AUGUST 2010 MEETING WENT VERY WELL WITH THE PRESENTATION OF OUR FRIENDS FROM ZARCO ELECTRONIC AS WELL AS ONE SCHOLARSHIP PRESENTED TO THE STUDENT JESUS OMAR ROJAS. GREAT TURN AROUND.

FOR THE MEETING OF THIS MONTH WE ARE GOING TO HAVE THE PARTICIPATION OF HUNTLEIGHT TECHNOLOGY GROUP, INC.

THE MEETING WILL BE AT THE **KVIA CH-7** INSTALLATIONS ON TUESDAY THE 14TH. AT 12 PM.(NOON).

ALSO WE ARE GOING TO PRESENT THE SECOND AND LAST SCHOLARSHIP FOR 2010, AND THE RECIPIENT IS: BENJAMIN ZAMORA.

LET'S BE THERE !!!!



ATTENTION

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NORBERT MILES IS OUR WEB MASTER.

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