Tuesday 15th May 2018

0900 – 1030  Introduction & Keynote Speakers

1030-1100  Test & Verification (Short Papers)
Session Chair, Ron Logan, Glenair Inc.

(51)  Stuart Mills, Chris McClements, David Paterson, Pete Scott, Steve Parkes; TESTING OVER ETHERNET WITH THE SPACEWIRE GBE BRICK
(01)  Daniel DeLazari, Alexandre Deucher, Angela Santos, Saulo Finco, Armin Horn, Matthias Beer, Volker Ohlen; DEBUG AND VERIFICATION OF SPACEWIRE LINKS

1130-12.35  Missions & Applications (Long & Short Papers)
Session Chair, Stuart Mills, STAR-Dundee Ltd

(31)  Fredy Lange, Ran Ginosar, Peleg Aviely, Tsvika Israeli; IMAGING NOGAH SOFTWARE-DEFINED SYSTEM COMPRISING MANY RC64 PROCESSORS FOR OPTICAL AND SAR OBSERVATION SATELLITES
(59)  Susan Clancy, Matthew Chase, Anusha Yarlagadda, Michael Starch, James Lux; SPACEWIRE AS A CUBE-SAT INSTRUMENT INTERFACE
(03)  Hans-Juergen Sedlmayr, Ralph Bayer, Alexander Beyer, Maximilian Maier, Nikolaus Seitz, Maxime Chalon, Wieland Bertleff, Werner Friedl, Thomas Obermeier; SPACEHAND: A MULTI-FINGERED ROBOTIC HAND FOR THE USE IN SPACE

1405-1455  Components 1 (Long Papers)
Session Chair, Dirk Thurnes, ESA

(13)  Stéphane Hermant, Kevin Enouf; THE EVOLUTION OF SPACEWIRE ELECTRICAL INTERCONNECT
(45)  Nils-Johan Wessman, Fredrik Johansson, Francisco Hernandez, Jan Andersson, Claudio Monteleone, Roland Weigand; STATUS UPDATE ON NEW STANDARD PRODUCTS WITH SPACEWIRE SUPPORT

1525-1615  Components 2 (Long Papers)
Session Chair, Jan Andersson, Cobham Gaisler AB

(56)  Albert Ferrer-Florit, Alberto Gonzalez Villafranca, Steve Parkes, Chris McClements; SPACEFIBRE INTERFACE AND ROUTING SWITCH IP CORES
(57)  Ronald T Logan; PHOTONIC TRANSCEIVERS FOR SPACEFIBRE DATALINKS
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<td>Components (Short Papers)</td>
<td>Joseph R Marshall, BAE Systems</td>
<td>Daniel González, Jesús López, Adrien Frouin, Jürgen Beister, David Levacq: SPACE-QUALIFIED EUROPEAN LVDS COMPONENTS FOR SPACEWIRE NETWORKS</td>
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<td>Marco Ruiz, Jean-Brieuc Feron: CONTROL LOOP PROCESSOR: A RELIABLE AND AGILE PROCESSING PLATFORM FOR MISSION CRITICAL APPLICATIONS</td>
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<td>Gil Baterina, Alan Senior: GALVANIC ISOLATION OF SPACEWIRE PORTS – AN INNOVATIVE DESIGN APPROACH</td>
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<td>Mikko Karpinen, Antti Tanskanen, Jyrki Ollila, Demetrio Lopez Molina, Juan Barbero, Cesar Boutella Polo, Richard Jansen, Iain McKenzie: RADIATION TOLERANT OPTICAL TRANSCEIVERS FOR SPACEFIBRE DATA LINK</td>
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<td>Hiroki Hihara, Mitsunobu Kuribayashi, Kyoko Murozono, Kazuyuki Yamada, Yu Otake, Kazutoshi Kobayashi, Yuto Tsukita, Haruki Marouka, Jun Furuta: PROGRAMMABLE SPACEFIBRE INTERFACE WITH NANOBridge FIELD PROGRAMMABLE GATE ARRAY</td>
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<td>Hiroki Hihara, NEC Space Technologies Ltd</td>
<td>Toru Sasaki, Shinya Hirakuri: SPACEWIRE AND SPACEFIBRE FOR INTERNAL ARCHITECTURE IN NVDRs</td>
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<td>Joseph Marshall: STANDARDIZED HIGH PERFORMANCE SPACEVPX MODULES LEVERAGE SPACEWIRE AS AN INTERNAL/EXTERNAL CONTROL FABRIC</td>
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<td>Networks &amp; Protocols (Short Papers)</td>
<td>Albert Ferrer-Florit, STAR-Barcelona S.L.</td>
<td>Thomas Bahls, Markus Bihler: USING SPACEWIRE TIME-CODES FOR GLOBAL SYNCHRONIZATION OF PLL-BASED LOCAL CLOCKS</td>
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<td>Markus Bihler, Thomas Bahls, EFFICIENT IMPLEMENTATION OF ON-CHIP COMMUNICATION OPTIMIZED FOR SPACEWIRE NETWORKS</td>
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Makoto Tomitaka, Yasushi Igarashi, Satoshi Ichikawa, Noriyasu Inaba, Atsushi Tomiki, Keiichi Matsuzaki, Ryouhei Kobayashi, Minoru Kumakiri, Iwao Fujishiro, Masaharu Nomachi: FEASIBILITY STUDY OF WIRELESS COMMUNICATION SYSTEM OPERATING ON SPACEWIRE NETWORK

Sadatoshi Eguchi, Takeshi Takashima, Iku Shinohara: SPACEWIRE NETWORK SYSTEM FOR ERG MISSION NETWORK AND THE RESULT OF ITS PERFORMANCE

Alessandro Leoni, Luca Fanucci, David Jameux: SIMULATOR FOR HIGH-SPEED NETWORKS (SHINE): AN OMNET++ SIMULATOR FOR SPACEFIBRE AND SPACEWIRE NETWORKS

Felix Siegle, Alessandro Leoni: STANDARDISATION EFFORTS FOR A NETWORK MANAGEMENT AND DISCOVERY PROTOCOL FOR SPACEFIBRE

1500 – 1630 Poster Presentations

Thursday 17th May 2018

0900 - 1015 On-board Equipment & Software (Long Papers)
Session Chair, Masaharu Nomachi, Osaka University

Erich Weih, Richard Wiest, Ottmar Ried, Paul Rastetter, Michael Stahle, Gunther Lohse, Martin Steiner: SPACEFIBRE BASED MASS MEMORY – EXTREME RAPID MASS MEMORY UNIT (EXTRA MMU) ENABLED BY SPACEFIBRE

Steve Parkes, Ashish Srivastava, Chris McClements, Pete Scott, David Dillon, Albert Ferrer Florit, Alberto Gonzalez Villafranca: SPACEFIBRE CAMERA

Steve Parkes, Pete Scott, David Dillon, Martin Dunstan, Chris McClements, Albert Ferrer Florit, Alberto Gonzalez Villafranca: SPACEVPX-RTG4 BOARD WITH SPACEWIRE OR SPACEFIBRE BACKPLANE

1045 - 1225 Networks & Protocols (Long Papers)
Session Chair, Jim Lux, Jet Propulsion Laboratory

Irina Lavrovskaya, Elena Suworova, Alexey Khakhulin, Igor Orlovsky, Yuriy Sheynin, Ilya Korobkov, Valentin Olenev: REAL TIME VIDEO DATA TRANSMISSION IN SPACEFIBRE NETWORKS WITH THE ESDP TRANSPORT PROTOCOL

Dirk Thurnes: SPACEWIRE AND SPACEFIBRE OVERVIEW AND ROADMAP

Charles Patrick Collier: A SWAPC SCALABLE HIGH PERFORMANCE HARDWARE STANDARD FOR 6U/3U VPX BASED PROCESSING AND I/O SYSTEMS

1355 - 1445  Test & Verification 1 (Long Papers)
Session Chair, Thomas Bahls, German Aerospace Centre (DLR)

(15) Irina Lavrovskaya, Yurii Sheynin, Valentyn Olenev, Ilya Korobkov, Lev Kurbanov, Dmitry Dymov; COMPUTER-AIDED DESIGN SYSTEM FOR ONBOARD SPACEWIRE NETWORKS

(25) Ran Ginosar, Peleg Aviely, Roy Nesher, Zeev Meister, Tsvika Israeli, Dror Reznik; TESTING AND VALIDATION OF SPACEWIRE CONTROL AND DATA LINKS OF RC64

1515 - 1630  Test & Verification 2 (Long Papers)
Session Chair, Irina Lavrovskaya, Saint-Petersburg State University of Aerospace Instrumentation

(52) Stephen Mudie, David Gibson, Chris McClements, Stuart Mills, Steve Parkes; TESTING SPACEFIBRE EQUIPMENT AND SYSTEMS

(53) Stephen Mudie, David Gibson, Chris McClements, Stuart Mills, Steve Parkes; SPACEWIRE LINK ANALYSER MK3 AND SPACEWIRE RECORDER

(61) Scott Calkins, Scott Aron Bloom; STATIC ANALYSIS FOR SPACEWIRE IP CORES
Poster Presentations

(05) **Thomas Bahls**, Markus Bihler, Sergey Tarassenko; SPACEWIRE MEETS BIG DATA – REALTIME DATA MINING

(17) **Irina Lavrovskaya**, Ilya Korobkov; APPROACH TO INCREASE SPACEFIBRE LINK BANDWIDTH USAGE FOR STREAMING DATA TRANSFER

(24) **Fredy Lange**, Ran Ginosar, Tsvika Israeli, Gilad Danin, Moshe Goren, Peleg Aviely; WIDEBAND DVB-S2X FOR EOS DOWNLINK ON SPACEFIBRE-INTERCONNECTED DUAL RC64

(33) **Yi Xiaosu**, Zeng Huasong, Zhang Chunxi; IMPLEMENTATION OF SPACEWIRE OPTICAL FIBER LINK FOR HIGH-SPEED AND LONG-DISTANCE DATA ACQUISITION

(39) **Sadatoshi Eguchi**, Takeshi Takashima, Iku Shinohara; DEVELOPMENT OF THE NEW MISSION DATA RECORDER (MDR) WITH SPACEWIRE INTERFACE ONBOARD THE ERG SPACECRAFT AND THE RESULT OF ITS PERFORMANCE ON ORBITS

(41) **Yu Junhui**, Niu Yuehua, Li Xiaojuan; COMMUNICATION PROTOCOL BASED ON TIME MULTIPLEXING FOR SPACEWIRE DATA HANDLING NETWORKS

(43) **Charles Patrick Collier**, Bill Ripley; SPACEVNX: A SCALABLE AND HIGHLY FLEXIBLE SMALL FORM FACTOR STANDARD FOR SMALL-SATS AND CUBESATS

(49) **Tatiana Solokhina**, Jaroslav Petrichkovich, Alexander Glushkov, Leonid Menshenin, Denis Kuznetsov, Steve Parkes, Dmitri Dynov; RADIATION TOLERANT MICROPROCESSOR FOR THE COMPUTER VISION WITH SPACEFIBRE LINKS

(50) **David Poudereux**, Juan Barbero, José Manual G. Tijero, Ignacio Esquivias, Iain Mackencie; OPTICAL SWITCHES WITH NO MOVING PARTS FOR SPACE APPLICATIONS

(60) **Jih-Jong Wang**, Nadia Rezzak, Stephen Varela, Ken O’Neill, Aug Gu, Esmat Hamdy; SERDES SINGLE EVENT EFFECTS IN 65NM FLASH-BASED RTG4 FPGA