08:30	**FPGAworld 2020 - Preliminary** **Registration: Stockholm, Sep 17th, Frösundaleden 2A, 169 70 Solna, SWEDEN**		
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09:00	**Conference Opening** Björn Eriksson, ÅF and Lennart Lindh, FPGAworld Room: Devoted 09		
09:15-10:00	**Keynote** **FPGAs for Deep Learning applications – Trends, solutions and tools** **Keynote speaker:** Magnus Peterson, Synective labs **Room:** Devoted 09 **Abstract:** Deep Learning has over the last years become a game changer in many fields, adding extraordinary capabilities to systems and products. With strong competition from other technologies, FPGAs are in many cases a leading candidate platform for deep learning implementation, combining high performance, low power and high flexibility. Seeing new high-volume opportunities, like automotive vision applications, the FPGA vendors has put large efforts into developing streamlined design flows for easy integration of deep learning inference engines into FPGA design. This talk will look at the current trends and present different ways of implementing Deep Learning inference on FPGAs. It will also walk you through the different approaches taken by the different FPGA vendors and their different deep learning tool sets. Session Chair: Lennart Lindh, FPGAworld		
10:00-10:30	**Coffee Break & Exhibition**		
10:30-12:00 3*30 min	**Industrial/Product Track** Session Chair: Room: Devoted 09	**Product Track** Session Chair: Room: Devoted 04	**Product Track** Session Chair: Room: Brave 05
	A: Significantly accelerating FPGA based development without compromising performance **Speaker:** Weintraub, Gidel Inc, Israel	**B: Microchip's next System On Chip device family: PolarFire SoC** **Speaker:** David Esselius, Microchip, Sweden	**Free**
12:00-13:00	**Lunch Break & Exhibition and Poster Session**		
13:00-13:30	**FPGA events during the year that has gone and gossips** **Mike Dini talk,** Dini Group part of Synopsys, USA Session Chair: Lennart, Room: Devoted 09		
13:30-13:45	**Break & Exhibition**		
13:45-14:45 2*30 min	**Industrial/Product Track** Session Chair: Room: Devoted 09	**Industrial Track** Session Chair: Room: Devoted 04	**Product Track** Session Chair: Room: Brave 05

	Free	**Free**	**Free**
14:45-15:15	**Coffee Break & Exhibition**		
15:15-16:00	**Panel Session** **Title:** Does the FPGA education meet the industrial needs? **Moderator:** Per Henricsson, Elektroniktidningen, Sweden **Abstract:** The leading FPGA manufacturers have invested incredible resources in tools for FPGA development yet with limited success. Is the problem the education? Is the FPGA education today enough or must it be changed to meet the various challenges involved in developing and integrating FPGA based solutions? Does the gap between the needs in the industry and the results from education grows? Is it some areas education is missing today?		
16:00-	**Go Home Drink in the Exhibition hall**		
Sponsors, exhibitors and/or presenters Copenhagen and Stockholm	DTU, Technical University of Denmark ÅF, Sweden Aktuel Elektronik, Denmark Elektroniktidningen, Sweden Dini Group, USA Synective Labs, Sweden	Avnet Silica, Denmark Gidel, Israel Microchip, Sweden	Motion Control, Sweden AGSTU FPGA Education (Yrkeshögskola), Sweden

Welcome to next FPGAworld Conference 2021
Stockholm 14 September and Copenhagen 16 September

FPGA™ world

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Keynote Speaker Stockholm

Title: FPGAs for Deep Learning applications – Trends, solutions, and tools

Keynote speaker: Magnus Peterson, Synective Labs AB, Sweden
Abstract: Deep Learning has over the last years become a game-changer in many fields, adding extraordinary capabilities to systems and products. With strong competition from other technologies, FPGAs are in many cases a leading candidate platform for deep learning implementation, combining high performance, low power, and high flexibility. Seeing new high-volume opportunities, like automotive vision applications, the FPGA vendors have put large efforts into developing streamlined design flows for easy integration of deep learning inference engines into an FPGA design.
This talk will look at the current trends and present different ways of implementing Deep Learning inference on FPGAs. It will also walk you through the different approaches taken by the different FPGA vendors and their different deep learning toolsets.

About the presenter: Magnus has more than 35 years of experience from developing high performance embedded solutions, mainly within vision and image processing, where FPGAs play a key role. He has been with Synective Labs since 2003 and worked previously with vision-based industrial inspection systems at Innovativ Vision AB.

Industrial presentations

Title: Significantly accelerating FPGA based development without compromising performance

Speaker: Weintraub, Gidel Inc, Israel
Abstract: FPGA technology offers significant advantages in diverse applications. However, the dispersion of FPGA technology has been limited due to the various challenges involved in developing and integrating FPGA based solutions. While FPGA is reconfigurable by nature, it requires the expertise of FPGA designers and is not within the scope of most software engineers, thus limiting significantly the number of qualified personnel who can develop on FPGA. The leading FPGA manufacturers have invested tremendous resources in tools for FPGA development yet with limited success. Moreover, developing and integrating a custom solution requires the cooperation of a board designer, an FPGA designer, an algorithm developer and a software engineer. As such, the complexity of developing on FPGA incorporates substantial obstacles that deter many companies from accessing the tremendous potential offered by FPGA.
In his talk, Mr. Reuven Weintraub, Founder and CTO of Gidel Inc., will elaborate on advanced tools and methodology for simplifying and significantly accelerating development on FPGA without compromising the final system's performance. Based on these tools key development bottlenecks are overcome enabling to reduce development time by 50% and beyond. Mr. Weintraub will expand on the possibility for replacing time consuming manual HDL designing with tools that automatically map the FPGA platform resources to the application needs thus reducing development time while enhancing system reliability and simplifying the system integration. The talk will address the fundamental challenges involved in FPGA development and present an innovative approach to developing and harnessing FPGA power to achieve versatile implementations while reducing development time and optimizing performance.

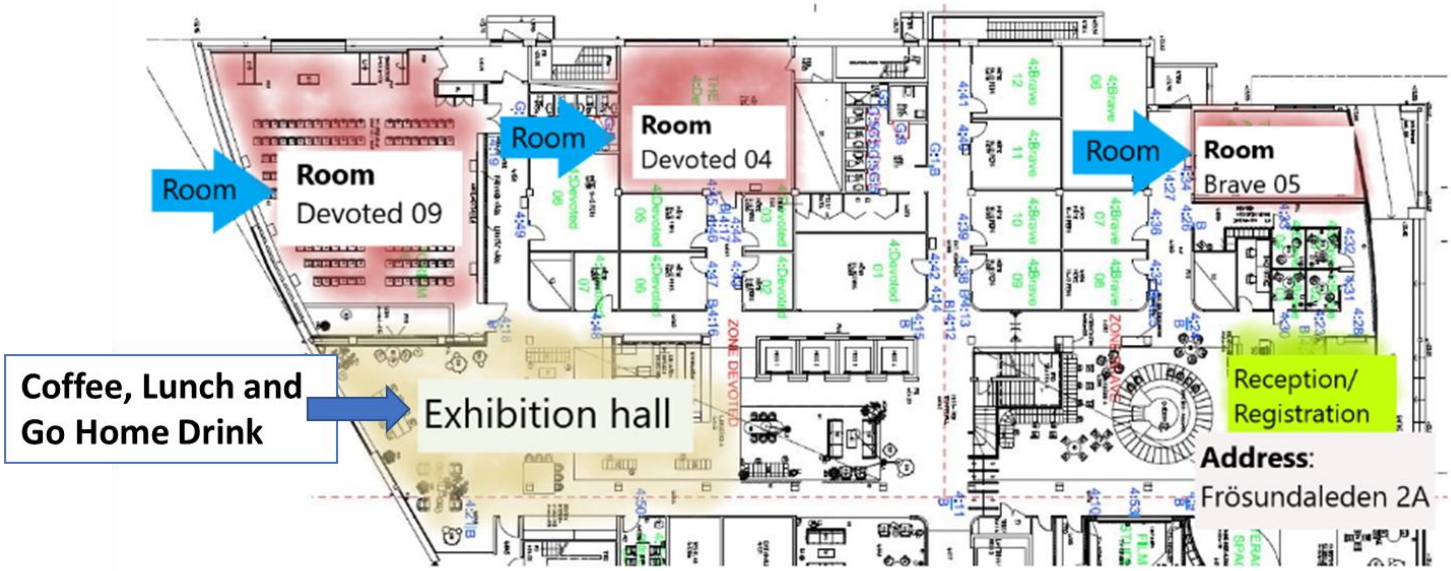
About the presenter: Mr. Weintraub, Gidel's founder and CTO, is a long-standing system architect and algorithms guru for FPGA based systems. He has led many innovations, some considered as mission impossible, such as retrieving lost data from JPEG compression. Prior to founding Gidel Ltd in 1993, Mr. Weintraub served 10 years in Medical Imaging companies in both technical and management positions. Mr. Weintraub holds an MSc. in Electronic Engineering and a BSc. in Computer Engineering from the Technion Institute of Technology Haifa Israel.

Product Presentations

Title: Microchip's next System On Chip device family: PolarFire SoC

Speaker: David Esselius, Microchip, Sweden
Abstract: A presentation of Microchips next System On Chip device family PolarFire SoC that builds upon the flash-based FPGA family PolarFire and also integrates a powerful RISC-V processor core cluster within the same chip.
The Processor cluster is organized with one monitor core and 4 application cores capable of running operating systems like Linux on all the cores or running a mixture of operating systems. The processor subsystem provides a variety of standard IO interconnection as well as the first stage and secondary stage cache memory for the cores.
The heritage of low power, obscene of configuration memory upsets, and security functions housed by the FPGA part of the device makes it suitable for various demanding to compute-intensive applications.

About the presenter: David works as Embedded Solutions Engineer, specialized in Microchip FPGA devices in the Nordic countries, since 2019. Previously he worked as an FPGA designer for Saab Avionics and developed safety-critical applications for airborne equipment since 2005 and as general hardware designer since 1994.



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