



Chip Hack EDSAC Challenge

Wed, 6 Sep 2017, 09:00 – Fri, 8 Sep 2017, 12:00 BST
The Town Hall, St George's Street, Hebden Bridge HX7 7BY

A workshop spanning two-and-a-half days to introduce a new generation to silicon chip design and the historic EDSAC computer

Chip Hack provides a gentle introduction to programming FPGAs (programmable chips) and is aimed at complete novices with no prior experience of Hardware Description Languages (HDLs) or FPGAs as well as experienced chip designers.

Booking essential

<https://www.eventbrite.co.uk/e/chiphack-edsac-challenge-registration-35008847405>

This two and a half day hands-on workshop has previously been run in London and Cambridge, with both being fully booked out within a matter of days of registration opening. In 2017 Chip Hack is being updated to make use of the new myStorm low cost FPGA board and open source IceStorm toolchain and, in celebration of the BCS 60th anniversary, will be recreating the 1940's EDSAC valve computer on FPGA.

This workshop starts from the basics (a chip design to flash an LED), works through more complex functionality (UART transmitter and receiver) and concludes by bringing up a complete processor. The workshop will be built around a re-imagining of EDSAC (designed by BCS founding President, Prof. Sir Maurice Wilkes) using modern technology.

Through low cost manufacturing and the availability of low cost FPGAs, more and more devices — particularly in Internet of Things (IoT) — are incorporating custom silicon designs. The goal of Chip Hack is to grow a new community of silicon chip designers. In addition, the use of EDSAC will build a new generation who understand the importance of early computers to modern technology.

For this special event we shall use a re-imagining of the EDSAC computer to commemorate the work of BCS founder president, Prof. Sir Maurice Wilkes.

Members of the Computer Conservation Society, who had personal experience of EDSAC, will be giving talks during this event. As a legacy for the future, all talks will be recorded and a documentary will be produced. These will be made freely available under open source licenses.

Chip Hack EDSAC Challenge is being hosted as part of the Wuthering Bytes Technology Festival. For details of the full programme please visit <http://wutheringbytes.com/>

**Sponsored by the BCS Open Source Specialist Group and Computer Conservation Society.
Produced by Embecosm.**



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