LUGS ON TOUR

ORCONF 2014

Mike Saunders finally becomes an alpha geek by hanging out with CPU designers.

If you've not heard of OpenRISC before, turn to p40 for our introduction to this open source processor design. OpenRISC has been around for well over a decade, but in recent years it has seen a surge in popularity – partly thanks to the overall increased interest in open source, but also due to the boom in mobile devices. So for the last three years, OpenRISC developers, users and curious onlookers have gotten together for their annual conference, and this year it took place on the 11–12 October in Munich.

Why Munich? Well, OpenRISC is used extensively in the city's Technical University for research into processor designs. Stefan Wallantowitz, a research assistant at the university, gave a talk about OpTiMSoC, the "Open Tiled Manycore System-on-Chip" framework (**www.optimsoc.org**). This is a pretty complicated topic, but essentially it lets you work with building blocks, such as CPU cores, memory chips, I/O modules and other bits 'n' bobs, and plug them together to create system-on-chip designs. Like OpenRISC, OpTiMSoC is primarily created in the Verilog hardware language, though it's not intended for production purposes.

Open hardware

Meanwhile, Olof Kindgren and Stefan Kristiansson gave updates on the status of the OpenRISC project, specifically the OR1K core; they talked about plans for the future, such as a new execution pipeline and improved 64-bit chips. Simon Cook from Embecosm, an embedded systems company that sponsored the conference, gave an update on toolchain support for OpenRISC – that is, the current state of GCC, Binutils and LLVM/Clang. And Sebastian Macke demonstrated his fascinating JavaScript emulator for the chip, which lets you boot a fully working Linux-on-OpenRISC installation inside your web browser.

Various other talks and presentations were given (see **http://tum-lis.github.io/orconf2014** for the full list), and although it was a fairly small event with around 40 people turning up, it was great to see so much passion and enthusiasm around open hardware. Indeed, one attendee grumbled that the breaks between presentations were too short, because everyone was enjoying meeting other people and having one-on-one discussions! Of course, the free beer during the day helped in that respect too.

Most of the talks were very technical, but there was plenty of opportunity to ask questions and learn more.

TELL US ABOUT YOUR LUG!

We want to know more about your LUG or hackspace, so please write to us at **lugs@linuxvoice.com** and we might send one of our roving reporters to your next LUG meeting

PyCon Ireland 2014

Josette Garcia is surprised not to see Google sponsoring its local Python event…

PyCon Ireland gathered 300 of Ireland's best and brightest Pythonistas together to share knowledge, develop their skills, discuss with peers and hopefully have some fun. We should not forget the people who came from further lands – Belgium, Hungary, France, Germany, Poland and Turkey to name but a few.

For €70, you get two days of talks, breakfast and lunch – corporate tickets are a little more expensive but students pay a lot less. As we all know, Ireland offers a lot of opportunities to the big high-tech companies such as Amazon, Apple, Cisco, Dropbox, eBay, Facebook, PayPal, Twitter and many more who in turn offer lots of jobs and helped the Irish economy to grow by 3.5% this year. I had a long chat with the guys from Brightwater Recruitment who said that the demand for techies was very difficult to fulfil – too many posts, not enough people. They are

very happy to hire qualified foreigners.

The first talk was "The Real Unsolved Problems in Data Science", given by Ian Ozsvald. According to Ian, data science was described as "the sexiest job of the 21st century" by the Harvard Business Review. All that I heard was, "Clean your data, clean your data" – nothing new or 21st century here and definitely not sexy. What is new, though, is how Ian highlights the gritty problems and proposes ways for Pythonistas to tackle and solve these issues to keep Python as the go-to language for practical data science work. Ian wrote about his talk on **http://ianozsvald.com** where you can also find his slides.

One of my favourite talks was given by Ben Nuttall – "Pioneering the Future of Computing Education". It is nice to see the involvement of the Raspberry Pi Foundation, which is leading the way in the computing in schools revolution by providing affordable

PyCon Ireland started with a modest 70 delegates in 2010, but by 2014 has grown to over 350 atendees.

hardware to people of all levels of experience. With their education team they are creating resources and training teachers who in turn will teach kids to start programming at a tender age.

With over 650 members, Python Ireland has had a really successful year. The monthly meetups have been very well attended with generally no less than 50 attendees turning up on the night. Talks are given on a variety of topics from computer science, finance, big data and more, with a focus on Python-related technologies. Preparations for the 6th PyCon Ireland start next month. Hope I meet you there!

Open Rights Group hack day

James Baster reports from a group using data for the power of good.

Open Rights Group (ORG) is a UK-based organisation that campaigns on digital issues. Recently they held a hackathon in London to work on technical projects, and a small but keen crowd gathered in Mozilla's donated office (Thanks!).

Mobile phone operators and ISPs now offer filters, which block sites that may be harmful to children. The problem is that no-one knows which sites are filtered and the filters aren't perfect and often block perfectly harmless content. So ORG recently launched **www.blocked. org.uk**, which was created by volunteers. This project places machines on connections so it can test and publicise which websites

are erroneously blocked. There was a nice moment at the start of the hackathon where volunteers who had been working virtually for months finally got to meet in person! This project is of course open source.

Other projects worked on included a "Kickstarter for elections", templates to help people make requests for their personal data, and tools for making people aware when they are in areas covered by CCTV or other tracking. A calendar of campaign events is being tested, and a game specially designed to teach players about digital issues was shown – your hacker daughter has been taken and your character has to

understand issues like tracking and encryption to get her back.

Open Rights Group needs our support to continue its work – check out **https://www. openrightsgroup.org**, visit your local meetup or join the volunteers email list and get involved before the next hack day!

The Open Rights Group used the hack day to put some of its ideas into action.
Photo credit: Jim Killock (CC BY-SA)