

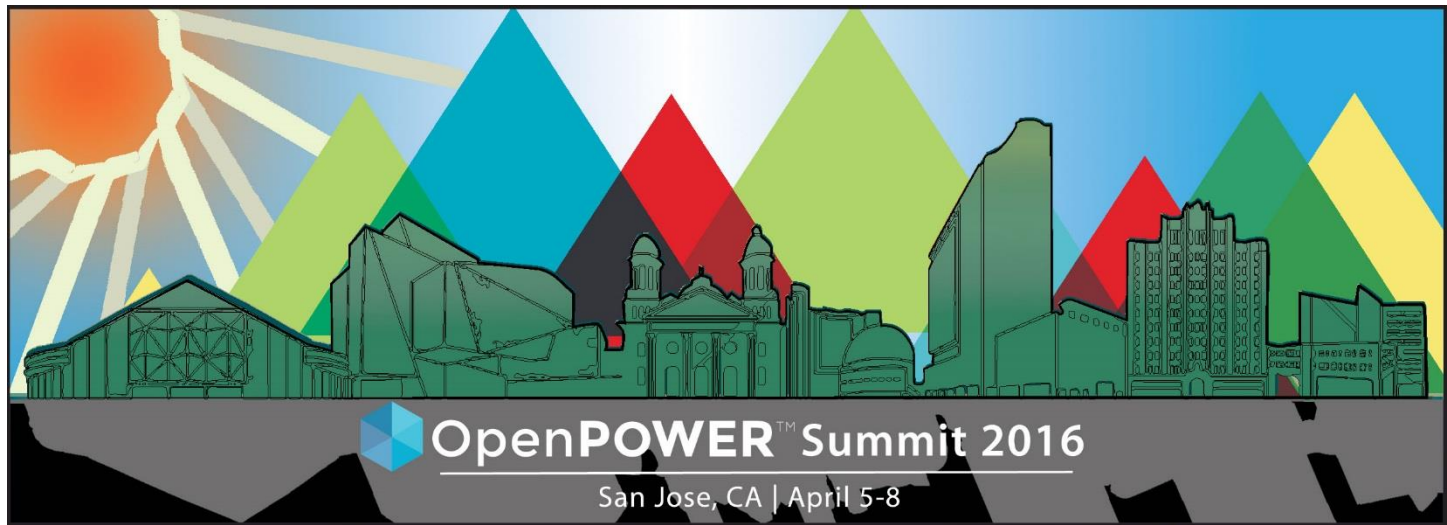


OpenPOWER Academia Discussion Group

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Revolutionizing the Datacenter



Join the Conversation #OpenPOWERSummit

Academic Membership

- Currently about 50 academic members in OPF

A*STAR	ASU	ASTRI	Moscow State University	Carnegie Mellon Univ.
CDAC	Colorado School of Mines	CINECA	CFMS	Coimbatore Institute of Technology
Dalian University of Technology	GSIC	Hartree Centre	ICM	IIT Bangalore
IIT Bombay	Indian Institute for Technology Roorkee	ICCS	INAF	FZ Jülich
LSU	RZG	Nanyang Technological University	National University of Singapore	NIT Mangalore
NIT Warangal	Northeastern University in China	ORNL	OSU	RICE
Rome HPC Center	LLNL	SANDIA	SASTRA University	Seoul National University
Shanghai Shao Tong University	SICSR	TEES	Tohoku University	Tsinghua University
University of Arkansas	SDSC	Unicamp	University of Central Florida	University of Florida
University of Hawaii	University of Hyderabad	University of Illinois	University of Michigan	University of Oregon
University of Patras	University of Southern California	TACC	Waseda University	

Goals of the Academia Discussion Group

- Provide **training** and exchange of experience and know-how
- Provide platform for **networking** among academic members
- Work on **engagement** of HPC community
- Enable **co-design** activities

Training: Regular Webinars

- 1 hour event, every 1-2 months
 - Presentation + Q&A session
- Speakers from academic and commercial members
- Focus on training and introduction into new technologies
- Organized as WebEx meeting
- Slides and recordings available in the membership area of OPF website
 - <https://members.openpowerfoundation.org/wg/AcademiaDG/wiki/webinars>

Training: Regular Webinars (cont.)

- 01/2015 Introducing the Little-Endian OpenPOWER Software Environment
- 02/2015 Performance Counter Tools in Practice
- 03/2015 Deploying OpenStack on POWER8
- 04/2015 Streaming Framework for CAPI
- 05/2015 Strategies for improving Application Performance on POWER8 with IBM XL compilers
- 01/2016 UCX: An Open Source Framework for HPC Network APIs
- 02/2016 Key-Value Store Acceleration with CAPI

Networking: ADG Workshops

■ ADG Workshop 2015

- Austin, November 2015
- 33 participants
- Sessions on HPC, data analytics and ADG member presentations

<https://indico-jsc.fz-juelich.de/event/13>



■ OpenPOWER INDIA Workshop 2015

- Bangalore, December 2015
- About 20 participants

<http://openpowerfoundation.org/openpower-india-summit-2015>



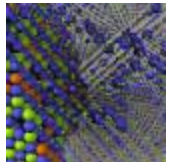
■ Next ADG workshop planned for November 2016

Engagement: IWOPH'16

- International Workshop on OpenPOWER for HPC
 - Co-located with ISC High Performance 2016
 - <https://indico-jsc.fz-juelich.de/event/18/>
- Goal: provide a venue for the broader HPC community to further understand OpenPOWER technologies and discuss how they can be harnessed for HPC applications needs
- Topics:
 - Porting applications experiences
 - Designs and use models for FPGA-accelerated applications
 - Co-designing the HPC software stack
 - Programming models for HPC and data analytics
 - Tools eco-system to improve productivity on OpenPOWER architectures
 - System architectural choices including memory designs, networking
 - Low level communication APIs, I/O frameworks
 - Runtime environments and schedulers
 - Benchmarking and validation studies on OpenPOWER architectures

Activities of Selected ADG Members

- A*STAR Applications
 - Application porting and optimizations on POWER
- CDAC
 - Graph Theory
- Forschungszentrum Jülich
 - Inauguration of POWER Acceleration and Design Center in October 2015
 - Focus on application enablement
- Hartree Centre
 - Launch of POWER Acceleration and Design Center in 2015
 - Application enablement



ADG Member Activities (cont.)

- IIT Bombay
 - MOLCAS Porting and Optimization on POWER
- IIT Roorkee
 - Object Duplication Experiments
- Oak Ridge National Lab
 - Application readiness for Summit within Center for Accelerated Application Readiness
 - Communication software development
- Reims University
 - Graph500 solution on an OpenPOWER based on the actual solution they have developed on the NVIDIA GPU
- Sastra University
 - Bio-informatics applications on POWER/OpenPOWER system



Conclusions

- Growing number of academic organizations have become member of the OpenPOWER Foundation
- The Academia Discussion Groups provides a platform for training, networking, engagement and (in future) enablement of co-design
- Those who have not yet joined:

You are welcome to join