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Hackathon

CENTRA Smart Cities Student Hackathon
1 -2 April, 2017
CENTRA Suite, 335 Benton Hall, University of Florida

The CENTRA international collaboration project is excited to announce its first hackathon! We welcome any enrolled student from the US or abroad to join us on Saturday, April 1st and Sunday, April 2nd to build applications, data visualizations, analyses, or anything you can think of around Smart Cities. Come use open data and the Internet of Things to improve residents’ lives.

This research-oriented hackathon will be the kick-off event for the following week’s (April 10 - 14) international conferences centered around Smart and Connected Communities. All hackathon participants are invited to these conferences to meet researchers and students from Thailand, Japan, University of Florida and other institutions to discuss their hacks, research, and other interests.

**Participation gets you**

- 23 hours of hands-on hacking with Smart Cities data
- Hack with our international students from Thailand
- Meet developers and graduate students experienced in big data technologies
- Workshops on data APIs, collaborative software development, and big data analysis
- Invitations to the CENTRA 2 meeting, SUNTOWNS, PRAGMA 32 Workshops meeting during the week of April 10 - 14
- Paid opportunity to present your work in Japan
Hackathon

The Hackathon Focus

We will welcome any hack focused on collecting or analyzing data from Smart Cities. Below are some examples from three cities: Chicago, Gainesville, and Taipei, Taiwan. Each city has a public data portal that can enable software applications, visualizations, or analyses that can improve the life of city residents. Any other open data source can be used for information such as weather, economic, geographic, etc.

Some examples of Smart Cities:

- Analyzing Chicago taxi rides
- Map of AirBox air quality data
- Graphing electricity usage in Gainesville

Git Hub Organization

We'll be using a GitHub organization to collect ideas and code and you'll receive an invitation in a few minutes. Please check out some starter ideas and contribute any ideas of your own by March 31, 2017 to: https://github.com/centrahackathon2017/datasets/issues
Hackathon

Prizes

- First Prize - Paid travel & lodging for up to two members of the winning team to present their research at the next CENTRA / PRAGMA meeting, currently planned to take place in Japan, 2018.
- Best Two Hacks - Present your hack during the SUNTOWNS workshop on April 12.
- All participants - Certificate and conference swag!
- Judging criteria will be available at the hackathon but will include wowness, uniqueness, and technical skill.

Student Teams

Participants are encouraged to work in teams of up to 4 students. Don’t have a team in mind already? The first hour will be focused on introductions and forming ideas. This is your opportunity to find others interested in the same smart hacks as you.

Agenda

Wednesday, March 29th  12:00 pm    Featured datasets and portals posted to GitHub

Saturday, April 1st

9:45 am    Breakfast is served at the CENTRA Suite!

10:30 - 11:00 am  Welcome & Introductions to your mentor team by ACIS Lab, Code for Gainesville  and City of Gainesville
Hackathon

11:00 - 12:00 am  Group Idea Discussion and Team Formation

1:00 pm  Sandwiches available

3:00 pm  Socrata API Workshop - learn about web-based data APIs

5:00 pm  GitHub Workshop - working with peers through GitHub

7:00 pm  Dinner is served!

8:00 pm  CENTRA Suite will remain open all night

12:00 am  Midnight Snack!

1:00 am  Workshop - Using ACIS’s Spark infrastructure for big data analysis

Sunday, April 2nd

9:00 am  Breakfast is served!

11:00 am  Hacking STOPS! Final GitHub commits!

11:00 am - 12:00 pm  Team Presentations

12:00 pm  Lunch

12:30 pm  Award Ceremony
Hackathon

Student Hackathon Host Team

Throughout the Hackathon, the organizing team will be available to help with logistics, UF campus information, and technical issues. Our mentor team will be available to help with using technology like Spark or GitHub as well as to make suggestions about how to approach problems related to your hack. (Information and suggestions provided by mentors will be available to all teams for fairness.)

Mentors

Matthew Collins, ACIS Lab Operations Manager
Andrew Crites, Mobiquity
Dave Stanton, Code for Gainesville
Alex Thompson, ACIS Lab Software Products Lead
Samantha Wolfe, City of Gainesville Senior Strategic Planner
Richard J. Garand, ACIS Lab Portal Developer
Saumitra Aditya, ACIS Lab
Icaro Alzuru, ACIS Lab
Srivattsan Sridharan, ACIS Lab
Kensworth Subratie, ACIS Lab

Organizers

Grace Hong, ACIS Lab Research Programs Coordinator
Dina Quinn, Administrative Assistant to Dr. José Fortes
Hackathon

Judging panel

Dr. José Fortes, Director of ACIS Lab
Dr. Renato Figueiredo, ACIS Lab
Emmanuel Posadas, Traffic Operations Manager, City of Gainesville

Special Thanks

[Image of logos: City of Gainesville, Florida and Department of Electrical & Computer Engineering]
Venue for the week of April 10-14, 2017

Hilton University of Florida Conference Center Gainesville

Located on the University of Florida campus, the Hilton University of Florida Conference Center houses the only IACC Certified Conference Center in Gainesville, making it the ideal location for university meetings. In addition to the many resources available to meeting hosts, guests have access to many services, amenities, and luxurious extras.
Welcome

It is with great pleasure that we welcome CENTRA members, friends and visitors to the CENTRA 2 All-hands meeting in Gainesville, Florida. This meeting brings together international CENTRA researchers to review ongoing collaboration projects, or to initiate projects that require contributions from researchers and/or cyberinfrastructure from different countries. It follows the CENTRA 1 Kickoff meeting, which took place approximately one year ago in Taipei, Taiwan. We look forward to together coming up with new ideas, demonstrating early prototypes, conceptualizing new projects and advancing science and its applications.

CENTRA 2 is the first of three meetings taking place in Gainesville during the week of April 10, 2017. The Smart University TOWNS (SUNTOWNS) Workshop, partially sponsored by CENTRA, takes place on April 12. The 32nd PRAGMA meeting takes place on April 13-14, focusing on activities related to the Internet of People and Things. In addition, we have social and technical events, including informal cultural activities on April 15, to further allow for networking amongst the participants of these meetings. We hope you will consider staying beyond CENTRA 2 to participate in both meetings and associated events.

CENTRA activities are funded in part by the National Science Foundation (NSF) of the USA, the Ministry of Science and Technology (MOST) of Taiwan, and the National Institute of Information and Communications Technologies (NICT), Japan. Additional funding for the CENTRA 2 meeting comes from the AT&T Foundation. We are very thankful for the support of all these sponsors.

Once again, welcome to CENTRA 2, to the University of Florida, to Gainesville, to the State of Florida and to the USA. Enjoy the UF campus and look for Albert and Alberta Gator, the UF mascots (alligators)!

On behalf of the CENTRA Steering Committee,

José Fortes,

Fang-Pang Lin

Shinji Shimojo

CENTRA Steering Committee Chair
CENTRA 2 Agenda

CENTRA 2 (ALL-HANDS) MEETING, APRIL 9-15, 2017, GAINESVILLE, FLORIDA

All events take place at UF Hilton, except Dinner on April 12 which takes place at Thomas Center. Plenary sessions are held in the Century Ballroom. Breakout sessions are held in the Century Ballroom and in the following rooms: Dogwood, Live Oak, Cypress and Birch.

APRIL 9

Travel Day

APRIL 10

8:00 AM  Registration and Breakfast

8:30 AM  Flyby Session: Opening communications
Welcome remarks: John Harris, ECE Chair, UF, USA
Presentation: “CENTRA: Objectives, Partners and Desired Outcomes”, Jose Fortes, Fang-Pang Lin and Shinji Shimojo

9:30 AM  Dive-in Session: Reports on Ongoing Projects
Session Chair: Renato Figueiredo
Project review: “The AirBox Project”, L. J. Chen

10:00 – 10:15 AM  Group Photo

10:15 - 10:30 AM  Break

10:30 AM  Dive-in Session: Reports on Ongoing Projects (continued)
Session Chair: Renato Figueiredo
Project review: “The Visualization Alliance,” Jason Leigh

http://www.globalcentra.org/centra2/
CENTRA 2 Agenda

Project review: “Data Handles and Provenance,” Beth Plale

Project review: New Directions for the Biodiversity Group, Jim Beach and Aimee Stewart

Project review: IT for Natural Disaster Management, Jason Haga

12:00 PM  Lunch at UF Hilton Albert’s restaurant

1:30 PM   Dive-in Session: New (Proposed) Projects

Session Chair: José Fortes

Project review: “ASEAN IVO -- Software Defined System update,”
Hong Hoe Ong (tentative)

Presentation: “US Ignite and Smart and Connected Communities,” Glenn Ricart

Presentation: “Science FreeWay: High Performance Data Transfer for Science BiG Data in Korea,” Woojin Seok


3:00 - 3.30 PM  Coffee Break and Group Formation for New and Ongoing Projects

3.30 - 5.00 PM  Catch-a-project-and-group Concurrent Breakout Sessions

Session chairs: Elected leaders for each group

Project groups meet and work in assigned breakout rooms

5:00 PM   Free Flight Session

Unscheduled time for informal interactions and group work

6:30 PM   Dinner (at UF Hilton Albert’s restaurant)

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CENTRA 2 Agenda

**APRIL 11**

7:30 AM  
Breakfast

8:30 AM  
**Catch-a-project-and-group Concurrent Breakout Sessions**

Session Chair: Fang-Pang Lin

Brief project group reports (in plenary Century Ballroom)

Project groups meet and work in assigned breakout rooms

10:00 AM  
Break

10:30 AM - 12:00 PM  
Project groups meet and work in assigned breakout rooms.

12:00 PM  
**Lunch** (at UF Hilton Albert’s restaurant)

**and CENTRA Steering Committee Meeting**

1:30 PM  
**Planning Session**

Session Chair: Shinji Shimojo

Brief project group reports (in plenary Century Ballroom)

Project groups meet and work in assigned breakout rooms.

3:30 PM  
**Takeway Session**

Final project group reports (in plenary Century Ballroom)

4:30 PM  
**Closing Remarks and Announcements of Future CENTRA Events**

5:00 PM  
**CENTRA Advisory Board and Steering Committee Meeting**

(members only)

6:30 PM  
**Dinner** (at UF Hilton Albert’s restaurant)

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CENTRA 2 Agenda

APRIL 12

8:00 AM - 5:20 PM  SUNTOWNS (Smart UNiversity TOWNS) Workshop
http://www.globalcentra.org/suntowns2017

6:00 PM  Departure from UF Hilton to dinner location

6:30 PM  CENTRA/SUNTOWNS Dinner
(at The Historic Thomas Center 302 NE 6th Avenue Gainesville)

APRIL 13

(Advisory Board and Group Meetings are by invitation only)
Group meetings for CENTRA Visualization Alliance, Data Provenance and Identifiers and other project groups; CENTRA Advisory Board Meeting

APRIL 14

(Advisory Board and Group Meetings are by invitation only)
Group meetings for CENTRA Visualization Alliance, Data Provenance and Identifiers and other project groups; CENTRA Advisory Board Meeting

APRIL 15

(Advisory Board and Group Meetings are by invitation only)
Group meetings for CENTRA Visualization Alliance, Data Provenance and Identifiers and other project groups; CENTRA Advisory Board Meeting (possibly with PRAGMA members)

http://www.globalcentra.org/centra2/
Welcome

Welcome to the first Smart UNiversity TOWNS (SUNTOWNS) Workshop taking place in Gainesville, a town with a great university, lots of sun and all kinds of smart people, infrastructure, businesses and nature places! The late US Senator Daniel Patrick Moynihan famously said nearly 50 years ago: “If you want to build a world class city, build a great university and wait 200 years.” I believe that a “faster” version of Senator Moynihan’s statement applies to Gainesville and UF. This international workshop hopes to contribute to the acceleration of the Gainesville-UF synergy by providing a forum to exchange ideas and lessons from smart and connected community initiatives in university towns from the US and other countries.

I encourage speakers and members of the audience to contribute and engage in the workshop activities, which include several invited talks and a panel with speakers from funding agencies, city governments and communities, research organizations, universities, and industry-university consortia. Let us all help forge collaborations and ideas that will lead to research and solutions for the highly interdisciplinary and socio-technical problems faced by university towns.

The SUNTOWNS workshop takes place under the auspices of the NSF-funded projects CENTRA and PRAGMA. CENTRA enables international collaborations on adaptable (software-defined) cyberinfrastructure for environmental modeling, natural disaster management and smart and connected communities. PRAGMA supports collaborative research amongst researchers from Pacific Rim countries on middleware and distributed computing to advance virtual scientific expeditions on, among other topics, lake science, biodiversity and advanced networking. The 2nd annual meeting of CENTRA and the 32nd semiannual meeting of PRAGMA also take place in Gainesville during the two days preceding and the two days following the SUNTOWNS workshop, respectively. SUNTOWNS attendees are welcome to participate in these other meetings.
Welcome

I want to acknowledge representatives of the City of Gainesville, the University of Florida and the US National Science Foundation for their participation in the SUNTOWNS workshop, and thank the US National Science Foundation and the AT&T Foundation for partially funding the workshop.

Once again, welcome to the SUNTOWNS workshop, to the University of Florida and to the City of Gainesville. I hope you can take some time to enjoy and stroll around the beautiful UF campus and see the UF’s official mascots, the alligators called Albert and Alberta Gator.

On behalf of the SUNTOWNS Organizing Team,

José Fortes
Invited Talks

NSF Initiatives in Smart and Connected Communities

Meghan Houghton, Staff Associate in the CISE Office of the Assistant Director, National Science Foundation, and co-chair of the Network and Information Technology Research and Development (NITRD) Smart Cities and Communities Task Group, USA.

Meghan Houghton, PhD, supports emerging CISE research frontiers, including Smart and Connected Communities, as well as cross-agency, industry, and international partnerships within CISE. Meghan co-chairs the Networking and Information Technology Research and Development (NITRD) Program’s interagency Smart Cities and Communities Task Force.

Top 10 Signs of a Smart Community

Glenn Ricart, Founder and CTO of US Ignite, USA.

Glenn Ricart founded US Ignite to spur next-gen applications and services that leverage the advanced networking technologies that are the foundation of smart communities. His interests are in smart city services, edge computing, and software-defined infrastructure. Dr. Ricart is also an Adjunct Professor in the University of Utah School of Computing.

Data Analytics and Embedded Systems for Understanding Cities

Charlie Catlett, Senior Computer Scientist, Argonne National Laboratory and the University of Chicago, USA.

Charlie Catlett is founding director of the Urban Center for Computation and Data, which brings social, physical, and computational scientists together with artists, architects, technologists, and policy makers to explore science-based approaches to opportunities and challenges related to the understanding, design, and sustainable operation of cities. He is a Senior Computer Scientist and Senior Fellow at Argonne National Laboratory / University of Chicago.
Invited Talks

Smart University Initiative in Osaka University

Shinji Shimojo, Professor and Director of Cybermedia Center, Osaka University and National Institute of Information and Communications Technology, Japan.

Shinji Shimojo has been a Professor and director with the Cybermedia Center at Osaka University. He is an advisor at National Institute of Information and Communications Technology. His current research work is focusing on a wide variety of ubiquitous network systems, and SDN. He was awarded the Osaka Science Prize in 2005.

The Messiness of Innovation: How Emerging Technology Infrastructure Demands New Types of Civic Order

Aaron Deacon, Founder and Managing Director of Kansas City Digital Drive, USA.

Aaron Deacon is the founder and managing director of KC Digital Drive, a nonprofit civic organization with a mission to make Kansas City a digital leader. He works with mayors, entrepreneurs and civic leaders in Kansas City and around the world to help build ecosystems that connect infrastructure, emerging technology and social impact.

A Resiliency Based Approach to Architecting a Smart Community

Matthew E Delcambre, Director, Center for Business and Information Technology (CBIT), Informatics Research Institute, University of Louisiana at Lafayette, USA.

Matt is an Executive in Residence for the Informatics Research Institute at the University of Louisiana at Lafayette where he is Director of the Center for Business and Information Technologies and also functions as Innovation Managing Director for the NSF IUCRC Center for Visual and Decision Informatics.
Invited Talks

Porto: A Living Lab for Future Smarter Cities

Rui Oliveira, Associate Professor at the Informatics Department of University of Minho and Member of the Administration Board of INESC TEC, Porto, Portugal.

Rui received his PhD in Computer Science at The École Polytechnique Fédérale de Lausanne. He is Associate Professor at the Informatics Department of University of Minho and member of the Board of INESC TEC. His research interests are on large scale distributed systems, in particular on fault-tolerant agreement protocols, epidemic communication and on exascale data management.

Experiences and Opportunities of Smart and Connected Communities in Taiwan

Fang-Pang Lin, National Center for High-performance Computing, National Applied Research Laboratories, Taiwan.

Fang-Pang is based at the National Center for High Performance Computing. He is the division director for Cloud Computing and System Integration. His research interests are in the areas of distributed and parallel computing and numerical methods.

Developing a transportation testbed in Gainesville, Florida: From concept to implementation

Lily Elefteriadou, Ph.D., Director of the UF Transportation Institute, and Professor of Civil Engineering, University of Florida, USA.

Dr. Elefteriadou is the Director of the UF Transportation Institute (UFTI), and the Kisinger Campo Professor of Civil Engineering at the University of Florida. Her research focus is traffic operations, traffic flow theory and simulation.
SUNTOWNS Agenda

Smart University Towns (SUNTOWNS) Workshop

April 12, 2017, Gainesville, Florida

Venue: Hilton University of Florida Conference Center

7:30 AM  Registration and Breakfast

8:30 AM  Opening Session

Welcome by UF President W. K. Fuchs

8:40 AM  Group Photo

8:45 AM  Invited Talk: National Science Foundation Initiatives in Smart and Connected Communities

Speaker: Meghan Houghton, Staff Associate in the CISE Office of the Assistant Director, National Science Foundation, and co-chair of the Network and Information Technology Research and Development (NITRD) Smart Cities and Communities Task Group, USA

9:30 AM  Invited Talk: Top 10 Signs of a Smart Community

Speaker: Glenn Ricart, Founder and CTO of US Ignite, USA

10:00 AM  Break

10:30 AM  Invited Talk: Data Analytics and Embedded Systems for Understanding Cities

Speaker: Charlie Catlett, Senior Computer Scientist, Argonne National Laboratory and the University of Chicago, USA

http://www.globalcentra.org/suntowns2017
SUNTOWNS Agenda

11:00 AM  Invited Talk: Smart University Initiative in Osaka University
Speaker: Shinji Shimojo, Professor and Director of Cybermedia Center, Osaka University and National Institute of Information and Communications Technology, Japan

11:30 AM  Invited Talk: The Messiness of Innovation: How Emerging Technology Infrastructure Demands New Types of Civic Order
Speaker: Aaron Deacon, Founder and Managing Director of Kansas City Digital Drive, USA

12:00 PM  Lunch and Presentation on UF-Gainesville Joint Development Plan
Speakers: Anthony Lyons, Manager of City of Gainesville and Charlie Lane, Senior Vice President and COO of the University of Florida

1:30 PM  Invited Talk: A Resiliency Based Approach to Architecting a Smart Community
Speaker: Matthew E. Delcambre, Director, Center for Business and Information Technology (CBIT), Informatics Research Institute, University of Louisiana at Lafayette, USA

2:00 PM  Invited Talk: Porto: A Living Lab for Future Smarter Cities
Speaker: Rui Oliveira, Associate Professor at the Informatics Department of University of Minho and Member of the Administration Board of INESC TEC, Porto, Portugal

http://www.globalcentra.org/suntowns2017
SUNTOWNS Agenda

2:30 PM  Invited Talk: Experiences and Opportunities of Smart and Connected Communities in Taiwan
Speaker: Fang-Pang Lin, National Center for High-Performance Computing, National Applied Research Laboratories, Taiwan

3:00 PM  Break

3:30 PM  Invited Talk: Developing a Transportation Testbed in Gainesville, Florida: From Concept to Implementation.
Speaker: Lily Elefteriadou, Ph.D., Director of the UF Transportation Institute, and Professor of Civil Engineering, University of Florida, USA

4:00 PM  Panel Presentations and Discussion: Smart University Towns: Challenges and Opportunities.

5:00 PM  CENTRA Smart Cities Hackathon Winners Presentations

5:20 PM  Closing Remarks

6:00 PM  Departure from UF Hilton to dinner location

6:30 PM  Dinner (at The Historic Thomas Center 302 NE 6th Avenue Gainesville)

http://www.globalcentra.org/suntowns2017
Welcome to PRAGMA 32!

The Advanced Computing and Information Systems Lab (ACIS) is honored to host PRAGMA 32 in Gainesville, Florida. We have an exciting week, with a program that includes not only the PRAGMA 32 main workshop, but also the second CENTRA All-Hands Meeting, the first SUNTOWNS (Smart University TOWNS) Workshop, and a Lake Modeling Workshop as part of PRAGMA’s lake expedition. We hope you will consider arriving early and participating in these additional events.

The theme for the PRAGMA 32 workshop is “Internet of People and Things”. It highlights the several ongoing and planned activities in PRAGMA on middleware that seamlessly brings together IoT devices (at the edge of the network) and cloud computing infrastructures (at the core of the network) to support emerging applications poised to have impact on how people interact with their surrounding environment and community.

This is the first time PRAGMA is being hosted in Florida, the “Sunshine State” in the USA. Gainesville is the home of the University of Florida, a flagship state university in the state. It is also located within driving distance of beautiful natural resources, and world-class attractions.

This also marks the 15th anniversary of PRAGMA. We hope you will join us in April to help make this a successful workshop, and to celebrate this milestone!

On behalf of the PRAGMA 32 organizing team, and with warm regards,

Renato Figueiredo
General Chair of PRAGMA 32
PRAGMA 32 Committees

Technical Program Committee

Renato Figueiredo, University of Florida, USA
Jason Haga, National Institute of Advanced Industrial Science and Technology (AIST), Japan
Paul Hanson, University of Wisconsin-Madison, USA
Kohei Ichikawa, NARA Institute of Science and Technology (NAIST), Japan
Yoshiyuki Kido, Osaka University, Japan
Ruth Lee, Korean Institute of Science and Technology Information (KISTI), South Korea
Fang-Pang Lin, National Center for High-performance Computing (NCHC), Taiwan
Ze Luo, Computer Network Information Center (CNIC), Chinese Academy of Sciences, China
Beth Plale, Indiana University, USA
Wanida Putthividhya, Thammasat University, Thailand
Prapaporn Rattanatamrong, Thammasat University, Thailand
Aimee Stewart, University of Kansas, USA
Heru Suhartanto, Universitas Indonesia, Indonesia
Ryousei Takano, National Institute of Advanced Industrial Science and Technology (AIST), Japan
Jelina Tetangco, Advanced Science and Technology Institute (ASTI), The Philippines
Putchong Uthayopas, Kasetsart University, Thailand
Nadya Williams, University of California San Diego, USA

Demo Committee

Wanida Putthividhya, Thammasat University, Thailand
Jason Haga, National Institute of Advanced Industrial Science and Technology (AIST), Japan
Kohei Ichikawa, NARA Institute of Science and Technology (NAIST), Japan
PRAGMA 32 Committees

Demo Committee

Wanida Putthividhya, Thammasat University, Thailand
Jason Haga, National Institute of Advanced Industrial Science and Technology (AIST), Japan
Kohei Ichikawa, NARA Institute of Science and Technology (NAIST), Japan

Student Posters and Lightning Talks Committee

Kensworth Subratie, University of Florida, USA
Quan (Gabriel) Zhou, Indiana University, USA
Chawanat Nakasan, NARA Institute of Science and Technology (NAIST), Japan
Pongsakorn U-chupala, NARA Institute of Science and Technology (NAIST), Japan

Local Organizing Committee

Members of ACIS Lab, University of Florida
PRAGMA 32 Program

Pre-PRAGMA Activities

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<td>CENTRA Smart Cities Student Hackathon, 335 Benton Hall, UF Campus</td>
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<td>Apr 10-11th</td>
<td>CENTRA-2 All-hands, Hilton UF</td>
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<td>Apr 12th</td>
<td>SUNTOWNWS Workshop, Hilton UF</td>
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<td>Apr 12th</td>
<td>Lake Modeling Workshop, 335 Benton Hall, UF Campus</td>
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<td>Apr 12th</td>
<td>CENTRA/PRAGMA Dinner, Thomas Center</td>
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Lake Modeling Workshop

Summary

The organizers of the workshop (Cayelan Carey, Paul Hanson, Renato Figueiredo) would like to invite PRAGMA 32 attendees to attend a lake modeling workshop to be held as one of the technical activities in the program. There are two ways we anticipate participation from PRAGMA attendees in the workshop: some participants may wish to join the workshop to learn more about ongoing lake modeling activities and consider engaging in the expedition, while other participants will have an active role with tangible contributions to a product of the workshop (a research paper). Both forms of participation are welcome! There are different expectations, which are elaborated in this call.

Scope

This workshop is an activity associated with the GLEON/PRAGMA lake expedition, and will focus on computer scientists and limnologists working collaboratively to apply lake models and the GRAPLEr cyber-infrastructure (www.graple.org) to address a specific science question focused on
changing water quality in GLEON lakes. The expected main deliverable of the workshop will be a paper manuscript to be submitted for publication. Because the main objective of the workshop is to collaborate on a paper, the organizers plan to engage a group of participants in several pre- and post-workshop activities, to include problem definition, setup of simulation environments, setup of simulation model executions, analyses, discussions, and technical writing. The organizers also plan to engage additional participants who would like to only attend the workshop day (April 12th) and “embed” with other expedition participants to learn more about activities and opportunities for possible future collaborations.

**Participation**

If you simply plan to attend and learn more about the lake expedition efforts, all PRAGMA 32 attendees are welcome to attend - all you need to do is register for PRAGMA 32. If you would like to engage more deeply with the effort to contribute towards a paper, we ask that you please contact the organizers via email prior to Feb. 8th, so we can better understand your interests, expertise, and expectations about the workshop. We plan to have at least three pre-workshop virtual meetings during February and March, the full workshop day on April 12th, continued discussions during PRAGMA break-outs, and post-workshop virtual meetings.

Lake Modeling agenda

10:30-11:30  Debrief, question overview, progress to date, presentation of initial figures
11:30-12:30  Breaking into teams for visualization, writing, and GRAPLEr additional runs
12:30-13:00  Break, get lunch set up, and quick walk!
13:00-13:30  Finish up lunch and identify priorities for afternoon
13:30-14:45  Resume work time for teams
14:45-15:30  Finalize outline, key figures, and tasks for post-workshop
15:30-16:00  Prepare presentation for larger PRAGMA debrief at 4:30
16:00-16:15  Return to Hilton conference center
16:30-17:00  Introductions and presentation of outcomes of workshop

Organizers

Cayelan Carey, Virginia Tech, USA - cayelan (at) vt (dot) edu

Paul Hanson, University of Wisconsin, USA - pchanson (at) wisc (dot) edu

Renato Figueiredo, University of Florida, USA - renato (at) acis (dot) ufl (dot) edu

http://www.pragma-grid.net/pragma32-program/
Thursday, April 13th,

Venue: Hilton University of Florida Conference Center

7:30-8:30AM  Breakfast

8:30-8:50  Welcome statements
Dr. Renato Figueiredo, PRAGMA-32 General Chair
Dr. John Harris, ECE Department Chair, University of Florida

8:50-9:30  Keynote
Dr. Peter Arzberger, PRAGMA Steering Committee Chair
“PRAGMA 2024: Building on Fifteen Years of Experience in Preparing for the Future”

9:30-10:30  Student/poster lightning talks
Session chair: Kensworth Subratie, University of Florida

10:30-11:40  Group photo / Break and poster session

11:40-12:30  Demo session I
Session chair: Dr. Jason Haga, AIST, Japan

"Virtual cluster image sharing on the PRAGMA cloud testbed",
Shava Smallen, UCSD, USA

"Towards Enhancing Usability and Modularity of the PRAGMA Cloud Scheduler",
Nannapas Banluesombatkul, Thammasat University, Thailand

http://www.pragma-grid.net/pragma32-program/
PRAGMA 32 Program

12:30-14:00  Lunch

14:00-14:45  Working group and expedition updates
            • Resources working group
            • Telescience working group
            • Bioscience working group
            • Cyberlearning working group
            • Lake expedition

14:45-15:15  Coffee break / Posters will be available

15:15-17:00  Working group and expedition breakouts
            • Resources working group
            • Telescience working group
            • Bioscience working group
            • Cyberlearning working group
            • Lake expedition

17:00  Adjourn

18:20-21:00  Dinner and special evening program
              Florida Museum of Natural History

http://www.pragma-grid.net/prama32-program/
PRAGMA 32 Program

Friday, April 14th,
Venue: Hilton University of Florida Conference Center

7:30-8:30  Breakfast

8:30-10:00  Demo session II
Session chair: Dr. Kohei Ichikawa, NAIST, Japan
"River Disaster Management Application for Collaborative Visualization",
Jason Haga, AIST, Japan

"Demonstration of IPoP Overlay VPN Application in Distributed Processing of Video Streams"
Vahid Daneshmand, University of Florida, USA

"Dynamic Work-groups for IoT and Cloud Systems",
Kensworth Subratie, University of Florida, USA

10:00-10:30  Coffee break / Posters will be available

10:30-12:30  Working group and expedition breakouts II

12:30-14:00  Lunch and PRAGMA SC meeting

14:00-15:15  Demo session III
Session chair: Dr. Jason Haga, AIST, Japan

"Prototyping distributed sensor networks using Amazon Web Services",
Dave Stanton, Appirio

"Global reference model and global garbage collection in the Dripcast",
Ikuo Nakagawa, Osaka University, Japan

http://www.pragma-grid.net/pragma32-program/
PRAGMA 32 Program

"Multi-tenant data center experiment on PRAGMA-ENT",
Kyuho Jeong, University of Florida, USA

15:15-15:45 Coffee break / Posters will be available
15:45-16:30 Working group and expedition updates
16:30-16:45 Best poster awards
16:45-17:30 Steering committee summary

PRAGMA-32 wrap-up
Welcome to PRAGMA-33

17:30 Adjourn
18:30-20:00 Dinner, UF Hilton Hotel

Saturday, April 15th

08:00 – 18:00 Wrap-up / Cross working group discussions / Cultural learning

http://www.pragma-grid.net/pragma32-program/
Participants

**Saumitra Aditya**
Saumitra is a doctoral student at ACIS lab, University of Florida. His research interests span networked systems, network virtualization and social networks.

**Icaro Alzuru**
Icaro is a PhD Student of the Computer & Information Science & Engineering (CISE) Department of the University of Florida. He is working as Graduate Research Assistant, under the guidance of Dr. José Fortes, in the HuMalN project: Human- and Machine-Intelligent Software Elements for Cost-Effective Scientific Data Digitization

**Peter Arzberger**
Peter’s appointment is at the University of California San Diego. He in addition to Phil Papadopoulos helped launch PRAGMA in 2002, and is the founding Chair of the PRAGMA Steering Committee. He has also helped launch GLEON and PRIME. He currently is serving as an IPA at the US National Science Foundation, as Senior Adviser in Computer and Information Science and Engineering

**Muharrem Ayar**
Muharrem is pursuing Ph.D. degree at the University of Florida. His doctoral research focuses on cyber-physical security of smart grid, control theory, and communication systems.

**Corey Baker**
Corey is a Postdoctoral Researcher at the University of California San Diego. His research interests are in the area of cyber physical systems specializing in opportunistic wireless communication for the Internet of Things (IoT), smart cities, smart homes, and mobile health environments

**Reed Beaman**
Reed works in the Directorate for Biological Sciences, Division of Biological Infrastructure, National Science Foundation. He is interested in biodiversity informatics and the application of cyberinfrastructure
Jim Beach

Jim leads an Informatics department focused on biodiversity modelling and biological museum data at the Biodiversity Institute at the U. of Kansas. Major activities include: (1) the Lifemapper Project for modelling single species distributions and for multi-species models for community diversity with linked phylogenetic analysis, and (2) the Specify Software Project for biological museum data management.

Erik Bredfeldt

Erik Arved Bredfeldt, PhD, AICP has an urban planning background and specializes in economic development. Erik works collaboratively with colleagues internally to City government and with community economic development partners and private industry to develop the City’s economy as well as the innovative capacity of the City organization.

Maxine Brown

Maxine is Director of the Electronic Visualization Laboratory at the University of Illinois at Chicago, responsible for fundraising, outreach, documentation, and promotion of its research activities. Her research interests include computer graphics, scientific visualization, collaboration, human-computer interfaces, high-performance computing, and international network infrastructure.

Carrie Bush

Carrie leads the areas of Economic Development, Intergovernmental Relations, Strategic Planning, Citizen Centered Gainesville and Communications for the City of Gainesville. She has a Ph.D. in Public Administration and Policy and 15 years of experience in local government, public policy and academia.

Tom Byron

Tom Byron is the Assistant Secretary of Strategic Development at FDOT managing the Offices of Planning, Research, Transportation Technology and Freight, Logistics and Passenger Operations. Interests include the latest in transportation emerging technologies in order to best position the department and state to be able to take full advantage in our continuing efforts to improve transportation safety and efficiency.

Cayelan Carey

Dr. Carey's research integrates population, community, and ecosystem ecology to examine how natural and anthropogenic perturbations affect freshwater systems. A current research focus is on understanding how feedbacks between microbial and plankton taxa, food webs, and nutrient cycling can mediate ecosystem resilience to eutrophication and climate change.

Charles Catlett

Charlie Catlett is founding director of the Urban Center for Computation and Data, which brings social, physical, and computational scientists together with artists, architects, technologists, and policy makers to explore science-based approaches to opportunities and challenges related to the understanding, design, and sustainable operation of cities. He is a Senior Computer Scientist and Senior Fellow at Argonne National Laboratory/U. Chicago.
Bill Chang
Special Advisor in the Office of Vice President for Research and Innovation, the University of Hawaii Systems. He served as Head of East Asia Pacific at the National Science Foundation and the Director of NSF China Office in Beijing and as the Science Counselor for Basic Sciences at U.S. Embassy Beijing.

Ling-Jyh Chen
My research interests are networked sensing systems and network protocols. I am currently working on the AirBox project.

Yen-Jong Chen
Yen-Jong is a distinguished professor of the Department of Urban Planning, and also a Vice Director of the RCETS at the National Cheng Kung University, Taiwan. His research interests include urban/housing economics, transportation planning, and is currently heading the a Green Energy planning project located in the Tainan HSR Station area to serve as a platform for academic and industries.

Hsiu-Mei Chou
Hsiu-Mei Chou is an associate research scientist at National Center for High-performance Computing. Her research is mainly focus on data resources management and sharing. Hsiu-Mei has been working with scientific community such as GLEON (Global Lake Ecological Observatory Network) for building data sharing infrastructure since 2003.

Matthew Collins
Matthew is the technical operations manager and scientific programmer for UF’s Advanced Computing and Information Systems laboratory. He provides for the care and feeding of the technical resources, both human and machine, of the lab. He has previously been a system administrator and web applications developer for the Florida Museum of Natural History at UF.

Vahid Daneshmand
Vahid is a PhD student in the department of Electrical and Computer Engineering working under the supervision of Dr. Renato Figueiredo. He is currently involved with the IPOP VPN project and his activities are focused on the usage of IPOP unstructured network overlay on IoT. His research interests are in the areas of IoT, network virtualization and P2P networks.

Susumu Date
Susumu is based at Osaka University. He is currently in charge of administration and management of supercomputing systems and services in the Cybermedia Center Osaka University. His current research interests are in the area of Grid and Cloud computing, networking and their applications.
Aaron Deacon
Aaron Deacon is the founder and managing director of KC Digital Drive, a nonprofit civic organization with a mission to make Kansas City a digital leader. He works with mayors, entrepreneurs and civic leaders in Kansas City and around the world to help build ecosystems that connect infrastructure, emerging technology and social impact.

Matthew Delcambre
Matt is an Executive in Residence for the Informatics Research Institute at the University of Louisiana at Lafayette where he is Director of the Center for Business and Information Technologies and also functions as Innovation Managing Director for the NSF IUCRC Center for Visual and Decision Informatics.

Jonathan Doubek
Student, Virginia Tech

Lily Elefteriadou
Dr. Elefteriadou is the Director of the UF Transportation Institute (UFTI), and the Kisinger Campo Professor of Civil Engineering at the University of Florida. Her research focus is traffic operations, traffic flow theory and simulation.

Soheil Fathi
Soheil Fathi is currently a Ph.D. student at M.E. Rinker, Sr. School of Construction Management. He joined Powell Center for Construction and Environment as a graduate research assistant in 2014. His current research interests lie in sustainable and Low / Net Zero Energy buildings, building energy simulation, and stochastic and real-time model predictive controls.

Renato Figueiredo
Renato is a faculty member at the University of Florida. His research interests are in the areas of virtualization in distributed systems, cloud computing, overlay networks, and peer-to-peer systems. He is the principal investigator in the IPOP (IP-over-P2P) overlay virtual network project.

José Fortes
José is a Professor and AT&T Eminent Scholar at the University of Scholar where he teaches and conducts research on advanced distributed computing and data systems. He also oversees the development and operation of cyberinfrastructure for several scientific domains. He is a PI/co-PI of the CENTRA and PRAGMA projects.
Kazutoshi Fujikawa

Kazutoshi Fujikawa is a professor in Graduate School of Information Science, Nara Institute of Science and Technology since 2002. He was a visiting researcher of the Multimedia Communications Laboratory at Boston University from March 1996 through January 1997. His research interests widely cover distributed multimedia systems.

Masanori Goto

Masanori Goto works at the National Institute of Information and Communications Technology where he is involved in several networking testbeds.

Adam Grupa

Adam is a PhD student at The Ohio State University. He works with his advisor, Chris Stewart, in the ReRout Lab, where he works on making autonomous systems more accessible to a general audience. His research interests include autonomic computing, distributed computing, artificial intelligence, and neural networks.

Jason Haga

Jason Haga is currently a member of the Cyber-physical Cloud Research Group in the Information Technology Research Institute of AIST. His current research interests include visualization of big data and persistent identifiers for data. He also works with cultural heritage institutions to deploy novel interactive exhibits to engage the public.

Paul Hanson

Paul is the co-chair of Global Lake Ecological Observatory Network (GLEON) and Distinguished Research Professor at U. of Wisconsin. His research interests include the role of lakes in carbon cycling at the regional watershed and global scales, ecosystem variability such as phytoplankton dynamics and lake modeling.

John Harris

John is Chair of the ECE Department at U. of Florida. Since August 2011, he has grown the department from 41 to 50 faculty members. He received his BS and MS degrees in Electrical Engineering from MIT in 1983 and 1986. Dr. Harris earned his PhD from Caltech in 1991 in Computation & Neutral Systems and joined UF in 1993.

Grace Hong

Grace is the Research Programs Coordinator at the ACIS Lab, University of Florida. She helps coordinates various activities, social media, meetings, webinars and members and partnership development support for the CENTRA network (globalcentra.org) and other research administration processes at the ACIS Lab. She has been involved in PRAGMA and PRIME activities since 2003.
Meghan Houghton

Meghan Houghton, PhD, is a Staff Associate in the National Science Foundation’s Computer and Information Science and Engineering (CISE) Directorate. Meghan supports emerging CISE research frontiers, including Smart and Connected Communities, as well as cross-agency, industry, and international partnerships within CISE. Meghan co-chairs the Networking and Information Technology Research and Development (NITRD) Program’s interagency Smart Cities and Communities Task Force.

Sabrina Huang

Sabrina is a research assistant of NCHC, coordinate the CENTRA/CECEA project. Her research interests includes economic growth model, econometric analysis.

Julio Ibarra

Dr. Julio Ibarra is the Assistant Vice President for Technology Augmented Research at FIU. He is responsible for strategic planning and development of advanced research networking services, including the development and management of the AMPATH International Exchange Point for Research and Education networks, in Miami, Florida.

Kohei, Ichikawa

Kohei Ichikawa is an Associate Professor at Nara Institute of Science and Technology, Japan. His past research work involved the design and development of middleware and applications for Grid, virtualized infrastructures and Software Defined Networking testbed. He is currently working on the PRAGMA project, developing an international Software Defined Networking Testbed for use by the PRAGMA researchers.

Kyuho Jeong

Kyuho is a PhD student in the ACIS lab. His current work is on unstructured peer-to-peer (P2P) overlay network with direct connection using ICE/STUN/TURN protocols (IPOP Project). His main research interests are in various network solutions for cloud computing and enterprise/multitenant data center using overlay and SDN. He is also interested in NFV, software middlebox, and censorship bypass techniques.

Eiji Kawai

Eiji is director of ICT testbed research, development, and operations laboratory, NICT. His interests cover advanced networking, system engineering, testbeds, and IoT.

Myat Thiri Khine

Myat Thiri Khine is an Assistant Lecture and currently working towards the Ph.D. Degree at Geographic Information System Laboratory, University of Computer Studies, Yangon. Her research interests are Geographic Information System and Spatial Database.
Yoshiyuki Kido

Yoshiyuki Kido is worked at Cybermedia Center, Osaka University. He administrates High-Performance Computing and Visualization services. He is interested in High-Performance Computing and Visualization area with Networking and SDN technologies.

Dylan Kobayashi

graduate student in the computer science department at the at the University of Hawaii and part of the Laboratory for Advanced Visualization and Applications (LAVA). Currently involved in SAGE2 development. SAGE2 enables usage of multiple displays as one seamless canvas and allows teams of users to work collaboratively within that interactive space.

Vyas Kovakkat

Vyas is a graduate student in the department of Electrical and Computer Engineering working as a OPS Student Assistant under Dr. Renato Figueiredo. He is currently working on the implementation of multicast and broadcast feature within the IPOP VPN network. He is also involved in the development of web based user interface for the IPOP network elements.

Arianna Krinos

Student, Virginia Tech

Charlie Lane

Charlie Lane is the University of Florida’s Senior Vice President and Chief Operating Officer. He assumed this role in March of 2014. Charlie came to us from the University of Southern California, where he worked for 23 years and last held the position of Associate Senior Vice President, Administration.

Giljae Lee

Giljae is a Ph.D student under the supervision of Dr Fortes in the ECE dept. at the University of Florida. His research interests include cloud/distributed computing, and autonomic computing. Currently, he is working on optimization of resource usage in Data-analytics frameworks.

Hyuk-Jae Lee

Hyuk-Jae works as a professor at Seoul National University. His research interests include parallel computing and algorithm optimization for video signal processing.
Kyungyong Lee
Kyungyong is an assistant professor in Kookmin University, South Korea. He is a proud alumnus from the ACIS lab in the UF. His research covers in the field of big data platform, cloud computing, and distributed system. He has few years of industry experiences in Amazon Web Services, HP Labs, and Samsung.

Ruth Lee
Ruth is working for Supercomputing Center, KISTI(Korea Institute of Science and Technoly Information) in Korea. She is a chair of Cyber-Learning/Distance Learning WG. Her research interests are building an open source platform for simulation-based cyber-learning, a platform for bigdata processing, and so on.

Jason Leigh
Jason Leigh received his PhD in Computer Science from the University of Illinois at Chicago (1998) where he is Director Emeritus of the Electronic Visualization Laboratory. Currently he is the Director of the Laboratory for Advanced Visualization and Applications (LAVA), and acting Director of the Academy for Creative Media System at the University of Hawai‘i at Mānoa.

Jian Li
Computer Network Information Center (CNIC)
Chinese Academy of Sciences

Hongliang Li
Jilin University, China.

Fang-Pang Lin
Fang-Pang is based at the National Center for High Performance Computing. He is the division director for Cloud Computing and System Integration. His research interests are in the areas of distributed and parallel computing and numerical methods.

Mary Lofton
Student, Virginia Tech
Jingchao Luan
Jingchao is a Master student under the supervision of Dr. Jose Fortes in the department of ECE of the University of Florida. He currently involved in the HuMaIN project in ACIS lab and focus on developing a framework for deploying and orchestrating HuMaIN microservices.

Ze Luo
Computer Network Information Center (CNIC)
Chinese Academy of Sciences

Yu Luo
Indiana University, Bloomington

Baalaganapathy Manohar
Baalaganapathy Manohar is a Student working towards his masters in Mechanical Engineering. He is currently working with Dr. Ravi Srinivasan from the Rinker School of Construction Management at UF towards his thesis in Physics Based Energy Modeling of Smart Cities.

Robert McDonald
Indiana University

Ikuo Nakagwa
Osaka University

Katia Obraczka
University of California, Santa Cruz
Rui Oliveira

Rui received his PhD in Computer Science at The École Polytechnique Fédérale de Lausanne. He is Associate Professor at the Informatics Department of University of Minho and member of the Board of INESC TEC. His research interests are on large scale distributed systems, in particular on fault-tolerant agreement protocols, epidemic communication and on exascale data management.

Philip Papadopoulos

Phil is the Chief Technology officer at the San Diego Supercomputer Center. He dabbles in networking, clusters, storage, and software related to distributed and parallel computing. He’s a member of the PRAGMA Steering Committee and Co-lead of the Resources working group.

Beth Plale

Dr. Plale is a Professor of Informatics and Computing at Indiana University where she directs the Data To Insight Center and serves as Science Director of the Pervasive Technology Institute. Research interests are in Big Data, long-term preservation and curation of scientific and scholarly data, large-scale data management, metadata and provenance, data trustworthiness and security, data-driven cyberinfrastructure and cloud computing.

Emmanuel Posadas

Traffic Operations Manager
City of Gainesville

Dina Quinn

Dina is the Administrative Assistant to Dr. Jose Fortes, Director of the ACIS lab. She also provides faculty support to Dr. Renato Figueiredo and Dr. Tao Li (IDEAL). Dina has been with the ACIS lab since 2009.

Glenn Ricart

Glenn Ricart founded US Ignite to spur next-gen applications and services that leverage the advanced networking technologies that are the foundation of smart communities. His interests are in smart city services, edge computing, and software-defined infrastructure. Dr. Ricart is also an Adjunct Professor in the University of Utah School of Computing.

Predrag Radulovic,

Indiana University
Myint Myint Sein

Myint Myint Sein is based at University of Computer Studies, Yangon, Myanmar. She supervises the development of image processing and geographical information system. Her research interests are in the areas of pattern recognition, computer vision, image processing, soft computing and 3D reconstruction.

Woojin Seok

Woojin Seok, is based at Korea Institute of Science and Technology Information(KISTI). He supervises the design, development and operation of Baremetal Cloud(Emulab) for Network/System R&D activities at Korea. He also participates NSF PRP(Pacific Research Platform) project as international partner. His research interests are in the area of network testbed, software-defined infrastructure, high speed TCP/FTP, cloud computing, and supercomputer file system.

Shinji Shimojo

Shinji Shimojo has been a Professor and director with the Cybermedia Center at Osaka University. He is an advisor at National Institute of Information and Communications Technology. His current research work is focusing on a wide variety of ubiquitous network systems, and SDN. He was awarded the Osaka Science Prize in 2005.

Teri Simas

Teri Simas is the PRAGMA Program Manager and has been with the program since its inception in 2002. She was the Pacific Rim Experiences for Undergraduates (PRIME) Program Manager from 2004-2015. She is an Analyst with the National Biomedical Computation Resource and works in collaboration with UC San Diego, SDSC, NSF, NIH and multiple institutions, both foreign and domestic.

Shava Smallen

Shava Smallen is a programmer at the San Diego Supercomputer Center at UC San Diego. Her research areas are cloud and distributed computing. She currently works on the international Pacific Rim Application and Grid Middleware Assembly (PRAGMA) project, developing a Cloud test bed scheduler and support tools to enable scientists to run application virtual clusters on PRAGMA cloud resources.

Srivattsan Sridharan

Srivattsan is a PhD student under the supervision of Dr. Jose Fortes at the University of Florida. He is involved in Biotaphy project which aims at the unification of various bio-diversity data to researchers. His research interests are in the areas of autonomic computing, distributed computing, software defined systems and model definition for information systems.

Ravi Srinivasan

Ravi Srinivasan is an Assistant Professor of Low/Net Zero Energy Buildings at School of Construction Management at UF. His current research focuses on the development of Dynamic Sustainability Information Modeling (dSIM) Workbench with integrative modeling, simulation and visualization platform for net zero campuses and cities.
Participants

Aimee Stewart
Aimee is based at the University of Kansas Biodiversity Institute. She is the lead developer on the Lifemapper project, a software infrastructure for analyzing species distributions with related biogeographic and phylogenetic data.

Christopher Stewart
Chris leads the ReRout Lab at The Ohio State University where we are making autonomous systems accessible, programmable and useful for farmers, city managers and hobbyists. Our research involves performance modeling, distributed platforms, autonomic resource management and computer architecture.

Kensworth Subratie
Ken is a doctoral candidate in the College of Engineering (Electrical and Computer Engineering) at the University of Florida. He is currently a Research Assistant in the Advanced Computing and Information Systems (ACIS) Laboratory under the guidance of Dr. Renato Figueiredo. His research interests lie in storage systems, virtual networks, and software system design.

Ryousei Takano
Ryousei Takano received his Ph.D. degree from Tokyo University of Agriculture and Technology in 2008. He joined AXE, Inc. in 2003. He joined Institute of Advanced Industrial Science and Technology (AIST) in 2008. He is currently a research group leader of AIST. His research interests include operating systems, high performance networking, and distributed parallel computing.

Yoshio Tanaka
Yoshio is the director of Information Technology Research Institute of AIST, Japan. He is the co-lead of PRAGMA Resources WG. His research interests include distributed computing, cyber physical systems, and security.

Dave Stanton
Appirio

Jaikrishna Tanjore Sukumar
Jaikrishna is working on the development and deployment of GRAPLE, a distributed computing application for lake ecology modeling. He is currently involved in proposing and adding new features to the GRAPLE system and optimizing the operations for improved stability and scalability. His research interests are in the domain of systems design, distributed systems, virtualization and cloud computing.
Derya Tansel
Derya is based at the University of Florida. She contributed to the Smart Lake Team at MIST Makers, which is under the MIST Center.

Hui Ping Tsai
Hui Ping Tsai received the Ph.D. degree in geography from the University of Florida in 2012. Her research interests are in the areas of vegetation dynamics, climate variability, and multiple-scale RS applications using satellite, UAV imagery for environmental monitoring and disaster mitigation/management.

Whey-Fone Tsai
Whey-Fone is based at NCHC, Taiwan. He plans the multidisciplinary project using cyberinfrastructure for big data applications. His recent research interests are in the areas of big data analytics, deep learning, and SAGE2 for applications to environmental monitoring and green energy.

Pongsakorn U-chupala
Pongsakorn is a PHD candidate from Nara Institute of Science and Technology, Japan. His research topics include software-defined network and high-performance computing.

Nicole Ward
Student, Virginia Tech

Nadya Williams
Enabling applications and software stacks in an integrated environment

Samantha Wolfe
Samantha leads Gainesville’s open government strategy, identifying and deploying technology solutions to enhance transparency, accessibility, and accountability. She coordinated the launch of Gainesville’s open data portal, citizen service request system, and online performance measurement dashboard. Ms. Wolfe also facilitates the development of the City Commission’s strategic plan, transforming the city’s purpose and vision into actionable and measurable objectives.
Felix Wu

Felix is a Computer Science faculty member at UC Davis. His primary research areas include cyber security and social informatics. His most recent interest has been the study of interference between the "system" and the social interactions.

Xingfu Wu

My research interests are energy-efficient computing, power and energy analysis in HPC systems, performance evaluation and modeling, power modeling, parallel and cloud computing, and scientific computing. Currently, I work on the NSF-funded MuMMI_R project, which aims to develop effective techniques for co-modeling and quantifying the complicated tradeoffs among parallel application execution time, power, and resilience on HPC systems.

Hiroaki Yamanaka

Hiroaki Yamanaka received M.E. and Ph.D from Osaka University in 2008 and 2011, respectively. From 2011, he is a researcher at Network Testbed R&D Laboratory of National Institute of Information and Communications Technology (NICT). His current research work is focusing on edge computing and SDN.

Baoping Yan

Dr. Yan has long been engaged in the R&D and construction of computer network system engineering, Internet technologies, large-scale scientific database technologies and applications. Her current research focuses on the e-Science environment Cyber infrastructure, grid technology and high-end application and technology.

Chih-Wei Yi

Dr. Chih-Wei Yi received his Ph.D. degree in Computer Science from the Illinois Institute of Technology in 2005. He is currently a Professor with the Department of Computer Science and the Director of the Institute of Network Engineering, National Chiao Tung University. His research focuses on wireless ad hoc and sensor networks, intelligent transportation systems, mobile sensing, and data mining.

Ying Zhang

Ying Zhang is a Ph.D student under direction of Dr. Jose Fortes in Advanced Computing and Information Systems (ACIS) at University of Florida. Her research interests are in the area of autonomic computing, parallel processing, and software-defined systems.

Quan Zhou

Gabriel Zhou is a PhD student of Prof. Plale in Indiana University Bloomington. His research direction focuses on data provenance, distributed system and data persistent identifiers. He is working as research assistant in Data to Insight Center and serving PRAGMA as one of the Student Steering Committee members.
Nannapas Banluesombatkul
Student, Thammasat University, Thailand

Prapansak Kaewlamul
Student, Thammasat University, Thailand