Computer Science Department
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Computer Science Advisory Council Meeting Minutes
Friday, May 11, 2018

Welcome, introductions

Dr. Beheshti welcomed all council members. Council members introduced themselves:

- Ed Myers- Pacific Life
- Juanita Dawson- Raytheon
- Michael Cleary- IBM
- Xinlin Wang- IBM
- Mike Marin- IBM
- Jack Han- Computer Science Graduate Coordinator
- Amlan Chatterjee- Computer Science Assistant Professor
- Bin Tang- Computer Science Assistant Professor
- Liudong Zuo- Computer Science Assistant Professor
- Philip LaPolt- Dean of Natural and Behavioral Sciences
- JC Bass- Associate Director of Development
- Peter Blankenship- Northrop Grumman
- Becker Polverini- PKC

Welcome, NBS College Dean, Dr. Philip LaPolt

Thank you everyone for taking time out from your busy work schedule. This body of advisory members is essential for our department and making sure curriculum is up to date. Your participation is important.

We have an ABET report due this summer. And we will be having a visit in November. Computer Science is an important department to our college. Computer Science department needs faculty and staff support. We will be hiring potentially two faculty; one has already officially accepted verbally and the other is pending to get the offer from the provost office.

Again thanks for supporting our faculty and students.

Overview of Programs
Programs:

A. **BS in Computer Science- BSCS** Accredited by CAC Computing Accreditation Commission of ABET since 1995. We have over 300 majors and 45 graduating this year. We are having another accreditation visit in the fall. This is very important for us.

B. **Master of Science in Computer Science- MSCS** Program started 2007. We have 60 majors and 15 graduating this year.
   MSCS offers two tracks: Software Engineering, Distributed System and Networking. Currently working on getting a new track, Data Analytics/Data Science hopefully for 2019/2020.

This program is growing very rapidly. We had eight graduate students present their project/thesis this semester.

C. **Bachelor of Arts in Computer Technology- BACT** Program started in 2008
BACT offers three different tracks: Homeland Security, General, and Professional track. We have 250 majors and 70 graduating this year.

D. **BS in Information Technology- BSIT** program started last spring 2016, two years ago. We have 20 majors and 2 graduating this year.

E. **MS in Cyber Security- MSCY** This is our fifth program starting this fall 2018. This program will be offer through Extended Education. The revenue coming in from this program will help support faculty, give faculty releases, and help bring faculty load down. As of now, we have 20 applicants.

F. **Computer Science Certificate for High School Teacher-** Starting fall 2018. Will consist of five courses to complete certificate.
Develop a certificate for high school teachers to teach computer science. Program will be a cohort of twenty with extended education offer fall, spring, and summer. We are working on this certificate with College of Education.

G. **Workforce Cybersecurity Certificate-** Starting summer 2018
Working on developing three courses. Grant funded from LA Coalition

Computer Science Department:

Programs in a glance- Information and requisites for programs are listed at
http://csc.csudh.edu/programs/
Enrollment/Graduation- We have about 600-700 students versus 120 students eight years ago.
http://csc.csudh.edu/student-enrollment-graduation/
Faculty- Our department has six faculty and fifteen part-timers. We are in the process of getting two more faculty.
http://csc.csudh.edu/faculty/
Staff- We have two staff; Ken and Violeta. Hoping to get more staff support.
http://csc.csudh.edu/staff-2/
Student Clubs- Have four clubs and Dr. Amlan Chatterjee is the advisor for students' clubs.
1. IEEE Computer Society
2. ACM- Association for Computing Machinery
3. CAHSI- Computing Alliance of Hispanic- Serving Institutions
4. Cyber Security Club
http://csc.csudh.edu/student-organizations/

Computer Science Department goals:
Maintain Accreditation for the following- ABET/CAC, NSA/DoD, BSCS, BSIT (new), BACT-HLS
Increase interdisciplinary and multi-institutional research activities- We are actively working with other schools, different departments on campus, such as; College of Education, Math department, it always great to work with other departments and those in the field of IT.
Offer new programs/concentrations/courses- Master's in Cyber Security will start this fall 2018 through Extended Education.
Maintain strong ties with industry partners- Continue having strong ties with our advisory council members and continue having internships, scholarships, and mentorships for our students. It is important to continue long-term relationships with companies.

Increase articulation with community colleges- Department is already working with seven to eight community colleges. Working with community colleges is essential to make sure students are taking all required courses before transferring to CSU, Dominguez Hills.

Increase research activities with our students- Our faculty has been active in working with students. Faculty are working on research and publishing papers. Students involved in research understand the concept.

Continue to graduate well-prepared students to continue their higher education studies and/or enter workforce- It is the student choice to start working or go to higher education once they graduate.

New courses-
- Discrete Structure
- Software Development
- Compiler and Finite Automata (course was under math department, will now be offered under Computer Science).
- Cloud Computing- MS
- Big Data- MS

Cyber Security track elective courses:
- Penetration Testing
- Enterprise Security
- Advanced Gaming

System Engineering (spring 2018)

IT Architecture (fall 2019) For BSIT

Area of Concentration

- Cyber Security

- Virtualization

- Sensor Networks

- Data Mining

- Big Data

- Data Analytics

- Data Science

- Curriculum Development

Research:

Publications- faculty and students are publishing papers, doing posters, and presentations.

Grants

- **CAHSI – NSF**

- **LA Coalition- Cybersecurity Certificate**

- **CAHSI-INCLUDES- NSF** This includes California, New Mexico, Texas working with community colleges and Merced for all STEM

- **Developing Problem Courses- Google** Teaching courses on practical problems from Google, students are working on them. In addition students are getting prepared for interviews, how to communicate well enough. Four to five of our students are going to Google for a year, as well as some faculty.

- **S-STEM- NSF (scholarship/pending)** Four year scholarships for students.

- **SFS- NSF (scholarship for service/in preparation)** 30k scholarships for undergrad students and 40k for graduate students and will cover for textbooks.

Centers
- Center of Excellence in Knowledge Management and Computational Science and Cyber Defense.

Labs
Security Lab, Big Data Lab, Forensic Lab, Portable Lab- 50 laptops we can move around for lack of computers.
Multipurpose Lab (in preparation)- classroom with portable laptops, we got the space approval hopefully we will have it ready for fall 2018.

Student Advisement
- Faculty advise students at least once a semester. Advising holds go on the students' portal every semester for advising. We want to make sure students take courses in the right sequence and meet all required prerequisites.
  We are also making sure we provide opportunities for many of our working students to take classes in the evening and weekends. We will try to offer all courses every semester and on the weekends, Saturday and Sunday.
- A degree plan in maintained for each student.

Student Support Programs
- **PLTL- Peer Lead Team Learning-** Dr. Han is the faculty coordinator for PLTL. There are seven PLTL leaders helping students in programming. It has been helpful to our department.
- **Employ senior students to help weaker students.**
- **AMP Program-** tutoring workshops
- **ACM work study group**
- **Scholarship-** STEM Advantage awards 15-20 5K scholarships to students per year.
- **Internship-**
  a. STEM Advantage
  b. IT Practicum: Internal internship collaborated with IT department on campus. Have 30 students placed in various areas on campus. At the end of the semester, students are invited to attend a ceremony where they get a completion certificate and letter of recommendation. Students received hands on experience and interview skills. We are the only CSU that has this program in place for students.
  c. JPL, Edison, Water District

  Mentorship-

       a. STEM Advantage
       b. CAHSI

Summary of our BSCS Program

- **Strengths and weaknesses of BSCS Program-** Need more faculty. Faculty need time to develop curriculum and research activities.
- **Limitations of the program-**
  - **Peter Blankenship-** We definitely need more faculty, more labs although we have five labs of our own. Getting support from corporations will help a lot.
  - **Amlan Chatterjee-** We need teaching assistance.
  - **Juanita Dawson-** Would donate $12k/year to the department.
- **Program's Educational Objectives (PEOs)**
  - Alumni will be able to further their professional careers
  - Alumni will be able to pursue graduate education
- **Faculty**
  - **Faculty recruitment-** 3 new positions
  - **Faculty review process (full time and part-time)**
  - **Upper-level courses and research**
- **Students**
  - **Enforcing prerequisites**
  - **Offering courses in ethics**
  - **Internship, research, competitions**
  - **Students are being prepared for the workforce and/or graduate studies**
- **Curriculum**
  - **Content of the Curriculum (math, theory, and sciences)**
  - **Assignments, projects, team work**
  - **Research/Club activities/Internship/Courses**
  - **Platforms used: Windows and Unix, IBM**
  - **Software: Java, C, Python, MathLab**
- **Facilities**
  - **5 up-to-date lab facilities-** receive a grant from ASI
  - **Network Administrator**
  - **Library/electronic resources/liaison**

Discussion Items

- **Selection of CSAC**
  - Juanita Dawson selected as new chair for chair for CSAC.
- **ABET review**
  - ABET visit is this upcoming fall in November
  - **Approved of the CSAC mission**
- **Curriculum review-**
  - **Mike Marin:** Do we teach cloud?
    Amlan Chatterjee: Yes we do. Cloud is taught in Distributed Systems and Networking
- **Research, Collaboration**
- **Student Research, Internship, Scholarship**
- **Suggestions from Advisory Members**

- **Mike Marin:** Companies can offer technology photography collaborations. IBM, for example, offers free technology for students to use. In addition, workshops will also show students what it is going on with Bloc Change or presentations. Students can get a free cloud account. Available to give a talk about Cloud, its properties and topics. IBM provides many resources.

- **Juanita Dawson:** There is opportunities for partnership. Professors should take a week at a company and bring back that industry experience to students. In addition, my MBA is from CSUDH, I am an alma mater. I had the opportunity to come and teach for a day to Peter's class on Professor for a Day.

- **Becker Polverini:** Companies can contribute to various events such as the hackathon or Toro hack by providing credible advisors. Advisors can help teams with programs such as API.

- **JC Bass:** You can contact the Development office for fundraising and we will assist you with working on getting funds.

Short student clubs and orgs presentation
Cyber Security Club
- **Mand Kittani:** President of Cyber Security Club. Participated in various events such as HENNAC and Toro Hackathon. Presidents of clubs are concerned about Professors participation with events and clubs. Strongly believe that they can help out more by advertising clubs and promoting events during lectures. Maybe by offering incentives such as extra credit will influence students to engage more often.

Mozilla Open Source Club
- **Gabriela Karaiva** is the reelected president of Mozilla Open Source Club. Established spring 2018 Unity and Android Studio. Next year will participate in phone conferences at least twice a month. The group is also participating in a Gino Project along with establishing a website.

  Spring 2018 Toro Hackathon event has caught the attention of many students compared to 2017. Higher number of attendees participated spring 2018. However the spring 2018 student committee consisted of six students, and they will like to see those numbers increase. Also interested in starting competitions such as: breaking into systems and password hacking. Brainstorming about providing students with monetary incentives in the competition. Clubs will be attending Regionals on November for an annual competition held at Riverside College.

ACM- Association of Computing Machinery
- **Alvaro Tzul**: President of the ACM. Will be graduating this year.
  - Martin Lennan will be the new president of ACM starting fall 2018. A major project that took dedication was the Drone Project during fall 2017. A big thank you to Becker for funding the project and providing interview

workshops. As well as to the advisor Dr. Chatterjee. The project consisted of both hardware and software. The drone project-benefitted members by bringing value to one's skills. The project helped to learn and understand hardware and software. Intel asked an ACM member about the Drone project and we were ecstatic about that.

CAHSI- Computing Alliance of Hispanic
- o **Jorde Guevara:** President of Computing Alliance of Hispanic

Concerns/Suggestions from students:
- Content of teaching should be appealing and interesting. Those courses that allowed hands on programming were much more interactive and was able to learn more. Having time to do assignments in class allows us students to learn more.