

A Year-End Review

Rocky K. C. Chang
December 18, 2012

My New Year Greeting

Dear all,

I wish you all a healthy and prosperous New Year of 2012.

I have not turned on my notebook for a week, so that I could focus on renewing and reorienting my inner life. Very thankfully I am now in a much better shape.

I will slowly return your emails today and tomorrow.

Blessings to you all,

- Rocky

"Do not be anxious about anything, but in every situation, by prayer and petition, with thanksgiving, present your requests to God. And the peace of God, which transcends all understanding, will guard your hearts and your minds in Christ Jesus." (Philippians 4:6-7)

Member movement

- Ang Chen joined Andreas Haeberlen's group at UPenn.
- Yujing returned to NUDT to continue her PhD study.
- Jack and Chenxiong joined our group.
- Xue Lei and Chen Yan will join us very soon.
- Visitors:
 - Prof. Sun Zhigang (NUDT)
 - Qingjie Xu (NUDT)
- More new members

Measurement and security

- Network and QoE measurement
 - ITF (3rd) and HARNET (5th year) projects
 - Rocky (leader), Waiting, Weichao, Ricky, Xue Lei, and Jack
- Network and system security
 - ITF on Android
 - Daniel (leader), Brent, Daoyuan, Chenxiong, and Chen Yan

Major accomplishments this year

- An ITF T2 funding on “Design and Implementation of a Unified Box for Offering Network Path Measurement as a Service” (~5 millions)
- An ITF T3 funding on “A Novel System for Assessing the Security of Android Apps” (~ 1 million)
- HARNET (200K)
- A spacious lab by ourselves
- Entrusted with the organization of PAM 2013

Major accomplishments this year (cont'd)

- “QDASH: A QoE-Aware DASH System in *Proc. ACM Multimedia Systems Conf.*,” 2012.
- “Characterizing Inter-domain Rerouting after Japan Earthquake in *Proc. IFIP NETWORKING*,” 2012.
- “MonoScope: Automated Network Faults Diagnosis Based on Active Measurements,” *Proc. IFIP/IEEE IM*, 2013.
- “An Efficient Approach to Multi-level Route Analytics,” in *Proc. IFIP/IEEE IM*, 2013.
- “Robust Network Covert Communications Based on TCP and Enumerative Combinatorics,” *IEEE Trans. Dependable and Secure Computing*, 2012.
- “More Anonymity Through Trust Degree in Trust-based Onion Routing,” in *Proc. SecureComm*, 2012.

Setbacks/problems this year

- Dragging on the three ongoing patent applications
- Very low performance on publications
 - Very few publications
 - No top conference publication
 - Only one top journal publication
 - Very few write-up on what have been done
- A serious constipation

Previously,

- USENIX Annual Tech. Conf. 2009
- ACM CoNEXT 2009
- ACM/USENIX IMC 2010
- NDSS 2011
- ACSAC 2011
- DSN 2011
- ACM CoNEXT 2011

The Law of Conservation

- Resources are limited, working on one thing means working less on others.
 - More becomes less.
- Stay focused on the main line of research and do not get distracted.
 - Less becomes more.
- Choose the best, not the good, or even very good.
- Best: in terms of the potential of making the greatest and sustainable impact

Work, rest and reflect

- Hardworking != Workaholic
 - A workaholic: person who works compulsively at the expense of other pursuits.
- There are seasons and rhythms in lives:
 - Growth takes place in “darkness.”
 - Rest != no work
 - “Faith Like Potatoes”
- Regular reflecting on what we are doing is extremely important.

Plan, plan, plan

- How can a company (student) operate (graduate) without a plan?
- “He who fails to plan is planning to fail.”
- The plan, however, must be realistic; a plan is not a wish list.
 - Well thought out given the present circumstance and the predictable future.
- Carrying out a plan
 - Group effort, leadership, commitment
 - Communication

Write, write, write


- Writing – expressing our thoughts in words
- Writing is therefore a thought process, not only a reporting process.
- Writing will clarify and organize our thoughts.
 - NOT clarifying and organizing our thoughts first and then write.
- Reading and doing without writing → indigestion
- There is no other way of passing our work along without writing.
- A researcher/scholar is a writer.
 - Writer: a person who commits his thoughts, ideas, etc to writing

What kinds of impact we would like to bring to the world through our research?

1. Training / educating students
2. Publications (top journal/conf, citation index)
3. Commercialization (innovation, product, patents, KT, business models, services)
4. Benefits to HK and beyond (educating the public, talents, infrastructure, improving the quality of life, etc)

黃小石 John Huang, PhD

护教 Apologetics, 学生工作 Student Ministry

 黃小石長老 1940 年出生於重慶，戰後隨父母先後定居台灣新竹、台北。1958 年中學畢業保送台大物理系。大學時期，與一位教授神父討論信仰問題長達一年半，終於釐清，悔改信主。

1962 年自台大物理系畢業後，服完兵役即赴美進修，於 1964 年在美國受洗成為基督徒。次年在校成立康乃爾大學中文查經班。1969 年獲得康乃爾大學物理學博士學位，其後擔任若歌大學 (Rutgers University, NJ) 物理系助理教授 (1969-73)、並擔任若歌大學查經班主席。

此後黃長老先後出任匹茲堡大學訪問學者 (1973-76)、艾克桑石油公司 (Exxon Research Company) 液態物理企劃主管 (1976-1998)、普林斯頓大學資深研究員 (1998-2009)。曾獲德國普朗克研究獎 (Max Planck Research Prize, 1990)、並獲選為美國物理學會會士 (1990)。目前任普林斯頓神學院訪問學者 (2009-)



黃長老曾任基督使者協會董事會主席多年、華福科技佈道事工主任、及眾聖徒協會董事等職，並在各地擔任佈道會、培靈退修會講員。黃小石曾在專業期刊與書籍發表論文 169 篇、並獲得 5 項專利。中文著作有基督教書評 30 餘篇，及《真理的追尋》、《苦難的尋思》、《愛的真相》、《善惡的省思》、《生命的追尋》、《信的真諦》、《天河拾貝》、《實存的真象》(2011 十月出版) 等書，現為美國新澤西州《漢新》月刊、香港《角聲》月報專欄作者。

黃長老目前在新澤西州的若歌教會 (Rutgers Community Christian Church) 事奉，現任教會長執會主席，是若歌教會創始會員之一。

黃長老與妻吳期馨博士育有子女三人，都已成家立業，目前有孫兒女八人。

“Your students are your legacy” by D. Patterson

- Thirty-two years later, I can confirm that hypothesis: your main academic legacy is the dozens of students you mentor, not the hundreds of papers you publish.
- My advice to advisors is to get your students off to a good start, create stimulating research environments, help them acquire research taste, be a good role model, bolster student confidence, teach them to speak well publicly, and help them up if they stumble, for students are the real coins of the academic realm.

Wish you a hardworking, restful
and reflective new year!