Who wants to be an academic?
(personal reflections on the academic life)

Paulo Tabuada

Cyber-Physical Systems Laboratory
Department of Electrical Engineering
University of California at Los Angeles
Some biographical notes

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Who wants to be in academe?

Do you have unbounded curiosity?
Can't sleep at night because you don't understand how to solve a problem?
Don't remember what your girlfriend/boyfriend just told you because you were thinking about the problem?
Called your assistant from an intercontinental flight telling her you forgot to bring the kinds with you?
They have been locked in your office for the past 5 or 6 hours.
Alright, this is too much!
Do you become thrilled when you discover a connection between two apparently unrelated concepts?
Do you see the beauty of ideas in every (most) class you take?
Do you feel rewarded when you share your knowledge and help someone else discover something?

Then there is a professor lurking in you and academia is the place where you belong!

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What do professors do?

They try to be good teachers. They try to be good researchers. They constantly fail but keep on improving themselves!

A good teacher delivers clear and very well organized lectures. It structures classes in a coherent manner, emphasizing key ideas and illustrating difficult points with well chosen examples. He has a clear view of the whole material and knows how to break it into small and incremental portions delivered at each lecture.

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Teachers, researchers, and professors

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A **good reacher** has a very clear view of the niche of science where he is an expert. He strives to deepen his understanding and uses all the time, energy, and resources available to him in his pursuit. His unique goal is further his understanding.
What do professors do?

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A good researcher has a very clear view of the niche of science where he is an expert. He strives to deepen his understanding and uses all the time, energy, and resources available to him in his pursuit. His unique goal is further his understanding.

Do you want to become a teacher, a researcher, or a professor?
Which skills do you need to succeed as a professor?

- Excellent technical skills are necessary but far from sufficient.
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  - When you become a professor, you won’t have an advisor to tell you which problems to solve.
  - But you may have a student that can solve those problems better and faster than you.

Mathematics is the lingua franca of science. The solutions to your problems already have been discovered, but you can see them because you don’t know how to pose the problem in the right language.

Learn as much as you can from as many areas as possible. I have said many times that I do not like a certain area only to regret it later. What I now say is that I do not understand a certain area.

You will have a long career during which you will do many different things, you need to be prepared.
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  - A scientist is a professional sceptic.
Get to know your community.
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- Good professors always have time to hear a good idea. Talk to them at conferences and workshops.
Working towards an academic job

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- Research is a struggle that you cannot win unless you are passionate about your problem.
- How can you transmit enthusiasm about your research if you are not excited about it?
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