

## Commencement Speech: Ramanathan, Sixth College, June 13, 2009

Graduates of 2009, what a glorious setting for graduation. If I finish my speech on time, I am sure you will all graduate today. I have very fond memories of last year's graduation, when my daughter Tara graduated from Sixth College and gave the student's commencement speech. I know how it felt and so, I would like to congratulate first the parents who have sacrificed so much to witness this day. Graduates, please give a round of applause to your proud parents.

Next, I thank provost Dr. Naomi Oreskes for inviting me to share my thoughts with you. Thanks to Naomi, I now share a common experience with President Obama, of giving a commencement speech without a honorary degree!

I know that many of you are really worried about graduating during a time when the country is facing one of its worst economic nightmares. I am sure most of you are anxious about finding fulfilling jobs. I really feel your pain, for I was in the same position about 44 years ago. I graduated with an engineering degree, when India was coming out of a crushing war with China and the Indian economy was in ruins and the morale was very low.

I knocked on many many doors for nine months before finding a job as a refrigeration engineer. It paid me well, but two years into the job, I realized that working in an industry was not my calling! I quit that job and went to graduate school. Three years into graduate school, I realized engineering was not my calling either! In desperation, I decided to go to America to get a job, any job, to pursue my other dream of owning fast American cars and live the good life.

But fate intervened again. A few months before my departure, I was offered a chance to pursue PhD in interferometry by the state university of New York; largely because, I built an interferometer as part of my graduate work in India. I took up that offer on a whim. On a cold day in Jan of 1970, I transplanted myself from the country of birth, curious to find out how an American built institution looked like. The day I arrived in New York with about 2 dollars and a suitcase, I found out that my American professor Robert Cess, switched his field from engineering to planetary sciences and I had no choice but to switch with him. That education, by sheer dumb luck, prepared me to switch again to climate sciences in 1974.

Thus, ten years after graduation, I found my calling and the rest is history. You see, until I found my calling, I was quite mediocre in what I did and doubted myself all the time. It was painful and at times nightmarish, but now I see clearly that what I then saw as formidable obstacles were really golden opportunities. “You have to keep looking; make sacrifices; and not give up the search until you find the thing that makes you tick and brings out the real you’.

Speaking of obstacles, challenges and opportunities, the biggest obstacle we face is coping with climate change. The biggest challenge we face is to maintain our well being without an unsustainable consumption of fossil fuels accompanied by an unmanageably large climate change. We are in a big huge mess. But we can get out of that mess, if we see opportunities in it. One such opportunity is to switch to renewables such as solar, wind etc. The sun alone provides over 5000 times the energy we need each day. In this regard, I am really proud that UCSD is taking pioneering steps to be a green campus.

On the other hand, our leaders, constrained by political realities, are focused on what could be done and not on what should be done. Often they are locked in the blame game and take positions such as until you reduce your pollution, I will not reduce mine reminds me of what Gandhi said: ‘An eye for an eye will make the whole world go blind’. I am really happy leaders of California are an exception. I am now firmly convinced individual actions are the urgently needed catalysts for solving the climate problem. We have to show our leaders how to do it. I arrived at this realization somewhat accidentally.

Two years ago, I gave a talk on global warming at the UN general assembly hall in New York to over 500 high school students from around the world. After my talk, one somewhat shy girl from Africa asked me during the break: ‘Professor Ramanathan, your talk was scary; but tell me what are you doing personally to reduce global warming and what are you doing to help the poor deal with climate change’. I was dumbfounded and had nothing memorable to tell her. You see, she was not the first to ask me this question; but somehow that setting had a transformational impact on me:

When I returned, I started taking the bus to work. I never really got to own that fast American car. You see, only last year, after my last child graduated from

college, I could afford to buy that dream car. I offset my travels by buying carbon credits. I am now installing solar panels for my home power needs, but I can afford to take these steps.

What about the 3.5 billion people of this world who have no access to fossil fuels, but instead, burn dung, wood and crop residues for cooking, heating and lighting? It is for these folks, that Project Surya brings hope. You see, inhalation of the smoke from cooking fires kill over 2 million women and children each year; the smoke is also a large contributor to global warming. Surya, by giving them alternate ways of smoke free cooking, not only will improve their health, but also reduce global warming and in so doing, enable them to earn carbon credits and reduce their poverty.

Again, a major obstacle becomes a big source of endless opportunities. Graduates, you have already completed an awesome task. Each one of you has the capacity to accomplish what you want to do; don't be deterred by the nay Sayers; and don't give up the search. When you hit a low point, remind yourself that you were educated in one of the best institutions; and a citizen of one of the best, if not the best, nation in the world. So, after the party tonight, do get up late tomorrow, but start the journey to find your calling, whatever it may be. As Gandhi urged more than 60 years ago, 'Be the change you want to see in the world'.

Thank you and God bless you.