

Interview

Dr. Carl D. Crane III

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Our guest was born in the interior of the Northern part of New York city in the United States. Mr. Crane is a Mechanical Engineer, from Rensselaer Polytechnic Institute; he is also a PhD on Philosophy, from the University of Florida.

His family is comprised of his wife and his two daughters; they both studied at the University of Florida, where they currently teach; the youngest daughter has a two months old baby who brought so much happiness to his grandfather.

His relation with the UPB began when Mr. Julio Correa, a Colombian teacher and researcher who was awarded with a Fulbright scholarship; once he arrived to Florida started to work with him. Since then, they have kept in touch and have worked together. Mr Crane is sure that this exchange is a very positive strategy that allows the development of research at the University. *Universitas Magazine* talked with him.

1. An unforgettable childhood memory...

Well, this answer has to be related with my interest in engineering, when I was a child there were no videogames, we used to play with cars built by us or remote control cars, many people chose engineering as a carrier, because they were farmers and needed to fix their machinery.

To play with real things and learn how they work made a big influence on me.

2. What about school? Were you a good student?

The School... My town is very small (2000 people), there is only one school so every year the graduated group is about hundred people I used to know everyone at school. It was very different when I joined university, there were many people and they were very smart. My school has an Indian word name, Canna Jahari; as for the university I went to Rantcilian polytechnic a very good engineering school, there I met a professor, he was my mentor, he taught me everything about machines. He passed away.







3. How did you get to Florida?

There was a very famous design teacher from England at Florida University, he hired my mentor to go to Florida University and I went after him. It is important when you make a decision and the impact that has in your life and in your future. I ended working with him later on.

4. Which was your favorite subject? Why

I like all mechanisms and machines, as for example how the wind shields works and how the motor turns either way, it was fascinating and I was also very interested in robotic.

5. Besides your mentor what was your inspiration source?

When I went to university, the expenses and the tuition were very expensive. So, I got a scholarship from the army and I had to go to the army for five years ; this experience was very good and taught me how to treat people and how to appreciate simple things in life. I had to go to Alaska and learned how to survive at forty degrades below. This is one of the reasons why when I looked at the students at the university now I try to teach them how fortunate they are to study at that University, the costs are very low and sometimes they do not appreciate what they have.

**“Remember that
you are special,
just like everybody else”.**

6. When did you start to do research?

At the University, I had to go immediately I finish to the army, but I asked for permission, and I started my Master, my work was in robotics. Then I learned that my mentor had gone to Florida and was working with robotics, so I contacted him for a reference because I knew he was working with robotics, he told me to go to Florida and do the PhD with him and then I decided to leave the army.

7. Can you please explain to us why the spatial geometric mechanisms are so important?

It makes presence in everything we do. When you wake up in the morning and get on your bike or in your car, when you come to work, we do not really notice but all things have mechanisms and the impact is very big for people in fields such as medicine. It is very beneficial for people. The machines and mechanisms impact us all very much, also robotics applied to medicine.

8. Why do you think that a researcher should be an innovator?

I like both but I prefer to make things. A project that we are working in is not as complicated as a brain surgery it can be an invention for the tractors that lost their brakes and can be able to stop. Making these things we can prevent accidents etc. a big engineering project has more innovation than investigation and I really enjoy it. Sometimes the basic investigation is very difficult because the ones that have the resources want to see the applications right the way and it is very difficult to see these people motivated.

9. What is the question you are not able to answer?

There are always these big questions like: What is there in the Universe? How did that star? Where is all this going to? They are all out of my reaching.

10. Which one is the favorite quotation?

The one I remember is a silly one... Let me see... There is one that I use with my students "Remember that you are special, just like everybody else".

They all think they are special, what I want to say ...is that a student shouldn't say that; if he was not able to submit a paper on time because he is special, I must use a better quotation maybe from Ghandi or so.

11. Can you please recommend us a book for research, another one for engineering, and another one for entertainment?

One is a thesis and a study about screwdrivers, Sir Robert Wall, it is a very good book but very difficult to read, even the first chapter. It is applied to robotics so I think this is my favorite investigation book.

The engineering book ...I cannot remember its name but the author is professor TSAI, he died recently and I have it as a reference because is a very good robotic book.

Literature and entertainment? There are many, as for literature I read the all stile, I recently read uncle's Tom cabin about slavery in the United States, it was a very important book because created awareness about how bad slavery was and had a great impact on people.

These are some of his written works: a treatise on the theory of screws, that can be found at



Robot Analysis: The Mechanics of Serial and Parallel Manipulator, that can be consulted at:

