

# **HONORABLE MENTION 2016 TO THE PROFESSIONAL CAREER PATH**

Agreement of the Governing Board of the Official College of Industrial Engineering of Madrid, in  
its meeting on 29 of March, 2016.

ACTING: 16/06/2016

Dear Doyenne, Secretary and members of the Board, authorities and friends,

As you can imagine, it has been a surprise and a great deference for me to receive this Honorable Mention by the College Board because of the career path of my whole life. I receive it generous and undeservedly and I can assure that I feel overwhelmed and excited.

In addition to the College, I would like to thank to every people who have helped me to enjoy this moment. In first, place to Laura who accompanies me in this act with my sons and grandchildren. She is my wife since 52 years five months and 20 days. This reference is not a conviction, it is a token of appreciation because of her generosity and honey, helping and supporting me all of these years. We have lived the avatars that the destiny has brought us, good and bad things, although we have been privileged, has this act proved.

Also, I can remember my parents, with some Cervantes words: Thanks... *the favors God has made me to make myself as son of such parents as they were mine and give me , not with small labor, goods, and callers nature as fortune, I cannot match thank you reach the goods received...* (Chapter 23, *El Quijote*).

### **Work and study**

I would like to remember some events of my life: for example, after school I studied a degree, which, as Francisco Vighi said:

*Finally Spanish  
in the Central School  
where the Industrial Engineering  
is formed.*

During the degree, we had excellent professors: Puig, Adam, Vega, Castañeda, Scala, Paco Vighi, son, ... Some companions of that promotion, the first of Plan 57, are with us here.

Although in my 13 years I had already started working because of mandate of my father and as assistant in a mechanical workshop, with salary! I was working for sixty three years: *with happy and joy*, I have continued my journal day (As Mr, Quijote, as Cervantes has remembered us in chapter 16).

But we arrive in this way to a troubled point, that I arise to you: I continue working, and while I can, I will continue, therefore, I would not wish to finish my career path, here and today, because I want to continue my work... and if you like, I take this opportunity to tell you some things, but the final of my career we will translate to other moment, later, when I jubilate finally.

Although, as Cervantes in *The workers of Persiles and Sigismunda*, said: *There is not any way that does not finish if the laziness and idleness does not appear.*

In consequence, although I am in the final part of my life, I will try to continue working, writing and researching, because it is now when the humilities and purposes become more honest and the vanities quiet.

### **Scientific research:**

I would like to praise the science and to confess my passion for the technological and scientific knowledge. I have to thank a group of friends that has help and support me in my research and continue researching. Specially Julio Cano, Francisco Dalby and Alejandro Álvarez. The group work has always been an applied and wished objective.

With their help, I have looked for nomological relations between non-inertial systems, in the nature. Remembering to Gonzalo de Berceo: *in which people talk to his neighbor*, I has found behavior dynamics laws in scenery in which Newton laws are not applicable.

Although we difficult realize, we live in a physical world where everything spins, a physical world with an intrinsic movement around symmetry axis.

It is contradictory that, in this universe with a rotational behavior, the scientific mind has developed a dynamics based on the linear translation, mainly nowadays. We are in a scenery with rotational spheres and simultaneous rotation: the Earth rotates while orbiting, but also the Sun rotates while changes its path and spin our galaxy.

The aim of our actual research is better understand the true laws of the space, analyzing the behavior of the bodies with intrinsic rotation, in order to better understand why we live in a world with day and nights, with twilights and sunrises...

I have published five books on this scientific issue, which is called: Theory of Dynamic Interactions, and now I'm finishing texts in English and Spanish in two new volumes, as a summary of this work.

I started writing the last book, published in 2013: *Imago Universi: A history of the human conception of the universe*, 35 years earlier. It was born from the interest in knowing whether in astrophysics and astronomy history, had previously considered the same dynamic hypotheses. The book includes a chapter on the application of the Theory of Dynamic Interactions to the cosmos, to try to better understand their secular dynamic equilibrium, or planes celestial systems.

I combine all this with the daily work as a tax advisor in THESIS, because my current employer, my son Mario, Iñaki, María Jesús, Cristina and Carolina do not allow me to give up...

In the month of March, the American editorial *Global Journals* published a report about our investigations. In it, it is expressed as my studies had detected, that in nature they can be found easily intrinsic simultaneous movements of rotation and orbiting. The report remembered that the aporia that the possible existence nomological physical-mathematical correlation between the two movements a had been proposed.

This research interest was born about 1956, when the scientist and professor Miguel Catalán proposed us, his students, some conjectures about rotational dynamics, observing the behavior of a gyroscope and its reactions. In their textbooks, Catalan proposed a possible correlation between the structure of the atom and the classical rotational dynamics. These conjectures generated me great concern, and a real scientific worry for many years.

Therefore, my first speculation and conjecture were born in those early years, getting to know the true dynamic behavior of rigid solid bodies in space, in non-inertial conditions, trying:

- Understand the dynamic equilibrium of the cosmos.
- Justify multiple simultaneous coexistence in nature of orbiting phenomena and intrinsic rotation.

Under this theory, we can conceive and justify a universe in constant balance, in which a pair of forces, generate, while acting, a permanent orbiting movement following a closed path, keeping also constant initial intrinsic rotation. Thus it is generated a stable dynamic equilibrium of the universe, in harmony and not in unlimited expansion.

I am bound here, in front of you, and especially to my colleagues in the College Study who are present here, to remember our teacher Miguel Catalan, his teachings, and his memory. In appreciation of their teaching and seminal work, I wrote two biographies,

with similar desire that Herodotus had expressed many centuries earlier, 5<sup>th</sup> BC, in the preamble to the *Nine history books*, read:

"Herodotus from Halicarnaso presents here the results of your **research so that time does not become forgotten human actions** and that large companies rush either by the Greeks, or by barbarians, do not fall into oblivion ...

... so that time may not become forgotten of human actions ...

### **Social evolution**

It is a historical constant the correlation between scientific and technological progress and social evolution, but this process, which has been occurring in waves, and accelerated way since the industrial revolution, will have an unexpected development in the coming years.

It will affect all sectors of the economy and society: trade, transport, tourism, etc ... Even the banking or financial services, will suffer major changes. It will be the result of the information technology revolution and telecommunications. Engineering and technology will be the protagonists of this new social and economic revolution again.

But I would alert here an obvious strategic risk, and the possibility that the Spaniards lose this opportunity: with the crisis, have come to disappear the most science and technology publishers, and Spanish scientists and engineers can only publish in a few magazines, or in English, in this language flourish digital publishing, which accumulate and appropriating the knowledge generated in universities and research centers around the world. I arise, therefore, a call for help and attention: We are losing the heritage of technological and scientific knowledge in Spanish language, because now, all scientific and technological knowledge is written in English, and also is owned by these foreign publishers.

We should denounce this situation and propose a strategic action to preserve the scientific and technological knowledge in Spanish language. College, or rather the General Council, may participate in a project of this nature, for engineering and scientific research in Iberian languages, to either side of the Atlantic, offering to public administrations, universities and research, a digital publishing, in Iberian languages, which accumulates the knowledge that is being created in these languages.

I think it is an acceptable challenge, but necessary for our future and that of our youth, and requires the help of government...

### **Youth**

It should be our worry the youth. It should always be applied in society axiom of equal opportunities. Neither we see that there exist sufficient incentives for professional advancement, especially for the younger ones. Could we ask ourselves at the College mention the young Industrial Engineer of the Year?

However, to the youngest, I would remind Jorge Manrique, in their *Verses on the death of his father*:

*The life that is enduring*

*is not won with worldly states,*

*or with delectable life*

It makes working with enthusiasm and sustained effort, without more rest than required by the body's health. Assuming commitments, trying them with excellence and overcoming the difficulties with courage.

Therefore, I show that I cannot regret having seen spend my life toiled in my daily work with determination and enthusiasm, I cannot backtrack for having spent my life working and writing, neither I want or have to, because I consider and I proclaim my loyalty to my vocation as a researcher and my profession of engineer ..., although I has possibly been some heterodox in my hobbies, jobs and tasks.

I have tried to enjoy every moment, even working, researching or writing ...

I have been privileged because of my family, my friends, my colleagues and my staff, who have helped me to enjoy a pleasant life and achieve difficult goals, and I recognize that throughout my life, except at certain times, I've really had a great time ... With so many things, skiing, cycling, hiking, sailing, even in the bridge.

Therefore, I wish to express my gratitude to all who have helped me in this life.

To all of them, and the school board, I turn to the words Mr. Quijote recommends Sancho, when he was appointed governor of the Barataria island of Barataria:

*... show them grateful, that ingratitude is the daughter of pride, and one of the greatest sins that are known, and the person who is thankful that good you have done, gives evidence that too will God, so many goods will Contino did and it does.*

*(Letter of Don Quixote to Sancho Panza, governor of the Barataria island.)*

And not wanting to abuse more than your kindness, as I have no more but flay the tail of my opening speech, evoking term back to Cervantes:

*I am therefore grateful to the mercy here has made me unable to correspond to the same extent, holding back in the narrow confines of my (modest) power, I offer what I can and what I have of my own; (Chapter LVIII. That is how Don Quixote became more frequent on many adventures, that they did not wander each other.)*

Dear Laura, dear children Veronica, Mario and Eduardo, grandchildren, family, friends, colleagues and collaborators, thank you very much for your help. Thank you very much to all.

Gabriel Barceló Rico-Avello