

Developments in Biotechnology, Systems, Control & Education

Festschrift in Honour of Professor Rahamon Adisa Bello

By

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A Review Presented by

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Our man of the moment, **Professor Rahamon Adisa Bello**, is a well know person. That he was the Vice Chancellor of the University of Lagos, a former commissioner in Ogun State, a Chemical Engineer, a first-class product of the University of Ife, among other things, are well known facts about him. The short biography on this festschrift – to honor and celebrate his contributions, highlights once again some of these facts. I am told another person has been charged with telling us a summary of the biography of three-scores and ten years that we are here to celebrate with him today.

My job in the in the next few minutes, is as simple as it is different; I am, through a brief introduction to this book, to open a small window into his mind, and take a peep; tell a little bit of the internal arrangement of the man. What are the things, especially as an academic, that have kept him busy over these years? Of course, we also know he went to the University of Waterloo, Canada; and that he returned home, after a brief tour that lasted four-years, with a well-earned doctorate PhD in Chemical Engineering. The book opens with a lead paper into his mind and from it we can get to know, not only what he did in that very cold country for over four years, the passion that kept him busy when he was not doing his quiet politics, administering the university or being a good family or society person.

To enhance my work, I was given the rare opportunity and privilege to read the book in advance. And, as I read, the keywords coming out to me are: Bio-reactors, Catalysis, Contactors, Hydrolysis, Mass Transfer, Economics and Political Developments of the era of Indigenization Decree, Bio-Remediation, etc. These are not, in the main, strange things to me personally. I have met some of these words; my attitude to them all were not always very positive. Let us look at two examples: Bio-reactors and contactors.

Prior to being given this task, I did not pay a lot of attention to Bio-Reactors or any other reactors for that matter. I know that chemical engineers, like doctors do, sometimes like to talk above our heads! Are we, humans or animals, not ourselves some form of Bio-reactors? Am I stretching it too far if I say that the cooking pot, with which I am going back home to perform some endothermic, evaporative chemical reactions on pepper, tomatoes, iru etc. into palatable dishes, is a reactor in its own right? In fact, I have long suspected that the chemical engineers might be using the medical doctors' playbook and pulling a trick on us when they use fancy names to describe simple things. Afterall, when a certain rich man was afflicted with simple rheumatic arthritis, they knew they could not collect millions of dollars

from him unless they call it by the fancy name of “Radiculopathy”! After spending all that money, the man, who was not only in government, but also in power, famously stepped aside, and that was, perhaps, the last we heard of him.

As I read on, I encountered another big word, “contactors”. The last time I heard of that was more than 40 years back when in 1975, Dr Ajayi (I hope he is not here) taught us about electrical contactors. Did not understand the circuits so I got it memorized and gave him back his circuit at the end of the year during the “Almighty June”.

If you come along to read this book, you may learn, like I did, that bio reactors are far from being mere blusters; in fact, they became especially useful sequel to the socio-economic condition created by Nigeria’s Indigenization fiasco (or decree, if you prefer). I was also able to see that there are other contactors apart from the circuit control devices of my second-year engineering at Unilag. I was even now able to understand the electrical contactors I previously memorized! The analytical process of Hydrolysis and the real importance of Mass Transfer in these processes. Furthermore, you will see for yourself, on the pages of this book how Professor RA Bello was concerned about the pollution caused by Industrial processes that he used his biochemical engineering skills to offer bioremediation schemes to ameliorate the punishment the environment is taking from our crude use of technology. In so doing, offering cleaner environment and safety that we all need to survive and thrive.

Organization

The book has fifteen papers in divided to three sections. The **first section**, made of six papers, is in Biotechnology and feature such eye-catching topics as “... the Magnetic Nanoparticles on the Kinetics of Bio-desulfurization of Diesel” to down to earth issues like the “Production and Characterization of Activated Carbon from Guinea Corn Husks ...”. The sixth paper by Solomon et al. that reviews the “The Conversion of Biomass to Biofuel – a Review” was an interesting read. I have long wondered why people should spend so much time converting edible fats and oils to denatured engine-propulsion fuels. Should we not be supplying more edible fuels directly to feed our hungry people? “**Ebi npami, olose nkiri, igbati n we nu, n o se we de**”. (I need thirty full minutes to translate and explain this; find a real Yoruba person: older than sixty and not a Lagosian). The review article here sheds light not only why it is necessary to do this but how people have been trying to do so more efficiently!

The selection of the six papers in the **second section** is more varied. This is due to the wide breadth of the area covered: *Systems Modelling, Analysis and Control*. The entire subject of mediating the creation of technology products through the application of the scientific method – what we call **engineering** is completely summarized in that title. Hence, we have wide ranging topics such as the biomedical application in the two biomechanical papers by O. Ibidapo-Obe et al., Controllers for Heat Exchangers by Williams, AO, et al., “... Exergy and Pinch Analysis” by MA Usman et al, and the “Adaptive Spam Filtering System Using Complement Naïve Bayes Model” by O Abass and MA Adegoke.

The last section has **three papers** covering Engineering Education and Information Technology. In the three papers, four eminent scholars give their varied insight into the

challenges of engineering training as well as an invitation to respond properly to the issues resulting from the way Information Technology is developing in our world today.

Conclusion

From the papers presented, covering a wide range of areas directly and indirectly related to the issues that our man of the moment, Professor RA Bello, has spent the greater part of his life thinking about can greatly educate many, if not all of us. If my wild thoughts on some of the topics have not roused your interest to find out for yourself, the fact that these issues have, in general, being the deeper, inner thoughts of today's celebrant; of his friends, collaborators, past and current students; might be enough reasons to want to do yourself the favor of owning a copy of the book!