



EDITORIAL

Man has always understood and done what he once could not understand and do, and because of this innate nature of human beings, research in fundamental and applied sciences is persistent. However, there is a very pertinent question. Why is research in Science still important in this era dominated by research in of Technology and Medicine? The question has been rising recurrently since many years but always abundant responses are provided in the form of new approaches of Sciences towards the improvement of Engineering and Technology and Medicine; certainly, technological development in turn contributes to the understanding of Science and its further research. Again, there is no distinct boundary between the two categories of studies in Science, viz., fundamental and applied sciences. In fact scientific community had always witnessed that what had appeared to be fundamental research earlier became a highly effective tool for application at a later stage. Researchers in fundamental Sciences search for truth, sometimes without any specific reason and expectation of applicability, but eventually their findings get applied and ultimately contribute a lot to the development of Technology and Medicine, directly or indirectly.

With this idea of quest for truth and their possible application, we are bringing out the Journal of Applied and Fundamental Sciences (JAFS) which will be mainly devoted to research of pure and applied Sciences. There cannot be any better occasion to come up with the first issue of JAFS, an international peer reviewed journal, than this centenary year of Einstein's General Theory of Relativity. Papers selected for publications in this journal are not only rich in quality but also are from diverse disciplines of Science. For instance, in one of the papers the authors tried to show phase transition of binary compound semiconductor Indium Arsenide under induced pressure in the light of density functional theory with an exchange correlation potential using first principle calculations, while in another one the authors calculated single electron capture process in collisions of $^3\text{He}^{2+}$ ions with CO molecule using semiclassical collision methods. In yet another paper the authors studied surface tension of liquid ^3He in a completely nonconventional manner. In one paper of mathematics, common fixed point theorem in fuzzy metric spaces is proved with the concept of both weakly compatible and non-compatible maps, while in another one the author continued the work of the famous mathematician Ramanujan by deriving some new identities involving Ramanujan's cubic continued fraction $G(q)$ by using Ramanujan's theta function. One of the papers has intensively investigated river pollution potential by determining various water quality parameters, while another paper has come up with the solution of purifying contaminated water showing that kaolinite and its acid-treated forms would be suitable for removing both Methylene Blue and Congo red from aqueous solution through adsorption-mediated surface immobilization. One more paper has addressed the issue of flood by dye-tracing methodology for soil infiltration estimation. These are only a few aspects of some of the papers of this issue. There are equally interesting and informative studies, if not more than those discussed, presented in different papers published in this issue of the journal. In short, this issue of the journal has touched almost all the aspects of Science, from fundamental to applied, from theoretical to experimental and from conceptual argument to rigorous mathematical analysis.

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