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Preface to the Journal of Scientific Enquiry, Second Volume, First Issue 2022

It is my pleasure to introduce this second issue of the *Journal of Scientific Enquiry*, containing a few selected articles. I welcome you to the Vol. 2 Issue 1 of Journal of Scientific Enquiry (JSE). You will recall in Vol. 1 Issue 1, I made our commitment to publish high-quality, impactful articles.

This time JSE publishes nineteen peer-reviewed scientific articles of significance in all areas of Science research work.

Sourav *et.al.* considered a few compounds for molecular docking and in silico analysis. From the theoretical studies, authors have inferred that the compound robustaflavone can act as a potent inhibitor against the COVID-19 main protease (Mpro) and also can show various antiviral and antimicrobial activity in case of the COVID-19 disease. **Subhamoy** *et.al.* synthesised ZnO NPs at room temperature of average crystallite size of ~11.5 nm and characterized in a systematic way with the UV PL emission studies. **Somnath Karmakar** mentioned the historical background of the development of graph theory in brief in his review work. Employing the graph theory author emphasized some fields in chemistry like, enumeration of isomers & Kekulé structures, investigation of structures and properties of fullerenes and other carbon cages, calculation of Hückel molecular orbitals (HMO) and related quantities etc.

Anupam Sen highlighted the machine learning algorithms in his article. Based on the findings author has concluded that feature extraction and machine learning algorithms may play an essential role in identifying the early diagnosis of breast cancer to reduce cost and time. **Rabi** *et.al.* identified the students, those are not continuing their higher education, after passing H.S. (10+2) examination, due to several reasons by their computational work using the concept of KNN algorithm. **In other** article Rabi *et.al.* addresses the challenges faced by cloud computing and its probable remedies. Authors have verified their results on the platform of python using pandas, seaborn, numpy, matplotlib, scipy and sklearn tools with random dataset.

Coal dust and emissions from different industrial outlets pollute the ambient air in a large scale. Not only human beings but also animals suffer a lot due to the growing air pollution. K. Gupta *et.al.* assessed the air pollution tolerance of plant species available in Barabaniarea, Paschim Bardhaman, West Bengal, India.

Moumita Patra studied the transport mechanism of polycrystalline $Pr_{0.7} Sr_{0.3} CoO_3$ with two different grain sizes. Temperature dependent resistivity shows a resistivity upturn at lower temperature region which is enhanced with the smaller grain sizes. **Dipali Ghosh** estimated the single ionization of Na atom by Ps impact for two different wave functions of sodium atom with the theoretical study. Till date, it is difficult to put the two wave functions to the test. Since, for frozen core approximation, the outermost electron of the ground state Na atom is from 3s orbital, it seems the 3s W.F. is more authentic than that of the hydrogenic one.

Sibsankar et al studied the Ricci solitons and conformal Ricci solitons in trans-Sasakian space form with semi-symmetric metric connection. **Anirban** et al delinated k-Yamabe soliton on 3-dimensional Kenmotsu manifold and proved that manifold is the locally isometric to Hyperbolic space $H(2n+1)(-1)$ and the manifold becomes Einstein manifold. **Rajesh** et al considered n-stage series system with redundant units in parallel with multiple constraints both in crisp and intuitionistic fuzzy environments. Authors also considered a numerical example to clarify the sensitivity of the proposed GA with respect to the crisp and intuitionistic fuzzy environments. **In another** article Rajesh et al solved a complex bridge system reliability under some constraints of design. Authors have designed the redundancy allocation problem in crisp environment as well as in imprecise environments to clarify the uncertainty of the model.

Mousumi Mayra studied the effect of gender & educational level on optimism, self-efficacy and coping responses of college and university students and established a positive correlation between optimism, self-efficacy, and coping responses. **Study by Sweta et. al.** concluded in their study that gender and status of employment of criminal advocates has no impact on the psychosocial variables selected in the study, though it has been seen that social support and reciprocity are high among male criminal advocates but conflict higher among female criminal advocates. **Results of the** study by Tapolagna *et.al.* describe a practical scenario in which intolerance of uncertainty especially prospective IU, positive and negative affect and anxiety play a relevant role in the psychological adjustment and life satisfaction of participants during the second phase of the COVID-19 pandemic.

Joydeep *et.al.* highlighted the different applications of a chronobiotic molecule, Melatonin in a wide range of vertebrates which ultimately helps living organisms to adjust or modulate their physiological actions in synchronization with the environmental photoperiodic conditions.

The vegetation of any place is the outcome interaction of many factors such as the elevation, soil, climate, species composition, eco- biotic interferences as well as environmental conditions concluded by S.K. Mandal *et.al.* based on their study on angiosperms. **Aroma is an** important agronomic and qualitative character of any rice varieties. Anjan Sinha studied 18 rice varieties and highlighted the conservation and agro-botanical characterization of some folk rices (oryza sativa l.) of West Bengal, India.

With new opportunities and challenges, we will continue to strive to make JSE more useful to the science research community. The number of submitted manuscripts from different sections is encouraging, demonstrating that our journal is becoming a reliable venue for researchers to disseminate their findings. I reiterate to our prospective authors to enjoy the benefits of JSE provides about mentoring nature of the unique review process, which offers good quality, and helpful reviews tailored to assist authors in improving their manuscripts. I acknowledge sincerely your support as we endeavour to make JSE the authoritative journal on Scientific research of academic, professional, industry, society and government.

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