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Editorial

Year 2018 is a very special for Mathematicians. The International Congress of Mathematicians (ICM) is to be held in Rio de Janeiro, Brazil during 1 to 9 August 2018. Mathematical world is awaiting the Fields Medal winners apart from the winners of Nevanlinna Prize, Gauss Prize, Chern Medal and Leelavati Prize. During the last edition of ICM in 2014, Fields Medal was won by Maryam Mirzakhani, Artur Avila, Manjul Bhargava and Martin Hairer. Mirzakhani was the first woman as well as the first Iranian to win the Fields Medal, Artur Avila was the first South American and Manjul Bhargava was the first person of Indian origin to win Fileds Medal. Mirzakhani had an untimely death at the age of 40 due to breast cancer leaving behind her a great legacy of beautiful Mathematics and unfinished works.

The Abel Prize for 2018 was awarded to Robert P. Langlands for his visionary program connecting representation theory to number theory. Langlands gave seminal contributions to automorphic representations even much greater than those given by Hermann Weyl and Harish-Chandra.

This issue of *Mapana* Journal of Sciences dedicated to Mathematical Sciences presents five research articles. The first three articles are from the area of Graph Labelings and the other two are from Fuzzy Mathematics and Fractional Calculus.

Lourdusamy *et al*. discuss the SD-Harmonious labeling of graphs. Here SD stands for Sum and Difference. They investigated SD-harmonious labeling of path related graphs, tree related graphs, star related graphs and disjoint union of graphs.

Monika and Murugan present the odd-even sum labeling of the graphs obtained by duplication of graph elements of star graphs and path graphs in the second article.

In the third article, Pandey and Kureethara, study the L(t, 1)-span of cycles with respect to specific sets. The L(t, 1)-span of a graph is the minimum of the highest colour used to colour the vertices of a graph out of all the possible L(t, 1)-colourings. For a given finite set T including zero, an L(t, 1)-colouring of a graph G is an assignment

of non-negative integers to the vertices of G such that the difference between the colours of adjacent vertices must not belong to the set T and the colours of vertices that are at distance two must be distinct. This is a type of Channel Assignment Problem. One may treat colouring as labeling as the authors deal only with non-negative integers as colours.

Nivetha Martin introduces the concept of linguistic average super fuzzy cognitive map (LASFCM) which makes use of experts' opinion in terms of linguistic variables to find the substantial outbreak of Gestational Diabetics, in the fourth article.

The final article is from the area of Fractional Calculus. S. Priyadharsini brings out some numerical examples on the stability of Fractional Linear Dynamical Systems.

We wish the readers a useful scholarly reading.

Joseph Varghese Kureethara
Issue Editor