### RECTOR MESSAGE

Dear Faculty and Students of Mathematics,

It is with a sense of pride and appreciation that I take this opportunity to thank and congratulate the department of Mathematics on this great venture of the online journal entitled Computational Mathematica with ISSN No. 2456-8686, a peer-reviewed open access international journal which showcases the talents and capabilities of all who are involved in genuine research in the field of Mathematics. I express my sincerest praise for all the contributors of the journal. I am happy that this venture of the Department of Mathematics would make all who are involved in research to develop



in them an attitude of research and prepare them for better career prospects. We are proud of the Department of Mathematics not only for the regular teaching and evaluation but also for the excellent performance in research and publication.

Knowledge expands our world view and ideas enrich our life. It is an investment that brings lifelong returns. Across nearly every industry – from healthcare and energy to transportation and technology – companies are looking for mathematicians to give solutions to their problems. The young men and women who study mathematics all over the world are called to apply mathematics to everyday life.

With Sincerest appreciation

Rev. Dr. C. Antonyraj, SDB Rector & Secretary

#### PRINCIPAL MESSAGE

Dear Students and faculty,

I am immensely privileged to pen these few lines in appreciation of the department of Mathematics in taking the lead in bringing out the second issue of the peer reviewed open access International Journal of Computational Mathematica with ISSN 2456-8686. This issue elevates the quality of research and makes it one of the major players in the area of publications.



As India strives to compete in a globalised economy in areas that require highly trained professionals, the quality of higher education becomes highly important. By 2030, India will be amongst the youngest nations in the world. With nearly 140 million people in the college-going group, one in every four graduates in the world will be a product of Indian Educational system. Many new initiatives have to be taken to make its quality in par with the top universities of the world. The contribution of quality articles in this second issue of JCM will help both staff and research scholars around the globe to push young minds to excellence.

My sincere appreciation to the Editor-in-chief and all the associate editors of the journal and I deem it a privilege to thank the authors for their contribution which has made this second issue a reality. I would like to also congratulate the head of the department and all the staff members for their wonderful cooperation and support which has made this journal a reality.

With best wishes

Rev. Dr. D. Maria Antony Raj Principal.

## ADDITIONAL PRINCIPAL MESSAGE

I am very glad to wish all success on the happy occasion of the release of the second issue of the e-journal by the PG department of Mathematics. I am glad to greet you through the journal brought out by the PG department of Mathematics. This is a great step forward. Quest for knowledge grows as the body of knowledge grows. The secret of knowledge is that the more it reveals, the more it hides. People from



round the globe are going after this knowledge. So, every new finding opens innumerable doors of knowledge. Through the step you take to publish the latest researches in the field of Mathematics, let the world of knowledge grow! I congratulate the PG department of Mathematics for such a bold initiative. I am happy to see them moving from strength to strength.

The recent letter from the UGC related to plagiarism, makes it clear that the plagiarism would not be accepted. People, who have indulged in such practices are being pulled up and punished even if they are in higher positions. We should draw lessons for our research endeavor. Let us do our research bringing in originality and publish quality papers. I am happy to know that this e-journal follows a rigid method to ensure that quality papers are selected for publications in this

I appreciate the deep thinking and hard work put in. I congratulate the entire dedicated team of Dr. G. Britto Antony Xavier.

May quality be your way of life. God bless all your noble efforts.

Rev. Dr. K. A. Maria Arokiaraj SDB The Additional Principal

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#### EDITOR'S DESK

A great satisfaction overwhelms my heart as this second issue is brought forth after enormous work adhering to our primary commitment to quality. A variety of articles have been received and original contributions have been given precedence. An enormous amount of work has gone into the development of this journal and I believe that you will see those efforts reflected in this edition and in the impact it will have.

I am extremely proud of our editorial board and we are fortunate to be able to draw upon their individual and collective knowledge, talent, judgment, and disciplinary backgrounds to advanced engagement in Mathematical research worldwide.

All the submitted papers have been peer reviewed, after a similarity check carried out by the Turn-it-in plagiarism software, by the members of the Editorial Board comprising of distinguished professors in Mathematics. Thus the submitted papers are selected on the basics of originality, significance and clarity. We congratulate all the contributors whose papers are published in this issue. Finally, I thank and appreciate the members of the Management and the research director of the Abraham Panampara Research Center of Sacred Heart College for their constant encouragement to bring out this second issue of the Journal of Computational Mathematica (JCM).

I extend my invitation to all those engaged in research in Mathematics to contribute their articles for the next issue in June 2018.

Dr. G. Britto Antony Xavier Editor – in – Chief