PUBLICATIONS (BOOKS, JOURNALS, BOOK CHAPTERS AND PROCEEDINGS)

A. BOOKS (GRADUATE TEXTBOOK IN MATHEMATICS AND MATHEMATICS EDUCATION)


B. ARTICLES IN REFEREED AND PEER-REVIEWED JOURNALS

B.1 Computational Mathematics and Data Sciences


B.2 Mathematical Biology, Epidemiology and Computational Biomechanics


46. “Computational and mathematical methods to estimate the basic reproduction number and final
size for single-stage and multi-stage progression disease models for Zika with preventative
measures”, Padmanabhan, P. and P. Seshaiyer, *Computational and Mathematical Methods in

47. "Mathematical modeling, analysis and simulation of the spread of Zika with influence of sexual
transmission and preventive measures." Padmanabhan, P., P. Seshaiyer, and C. Castillo-Chavez,

48. “Modeling, Computation and Simulation of Non-linear soft-tissue interaction with flow dynamics
with applications to biological systems”, *International Journal of Novel Ideas: Mathematics*, M.

49. “Nonlinear Dynamics and Analysis of Intracranial Saccular Aneurysms with Growth and
Article ID 2869083, pp 1 -12, (2016).


51. "Stability Analysis of a Model of Atherosclerotic Plaque Growth," S. Reddy and P. Seshaiyer,

52. "Computational Methods for Coupled Fluid-Structure-Electromagnetic Interaction Models with
Applications to Biomechanics", F. Mihai, I. Youn, I. Griva and P. Seshaiyer, *Mathematical

53. "Modeling the evaporation of a tear film over a contact lens", K. Talbott, A. Xu, D. Anderson, P.

54. “On the stability of lung parenchymal lesions with applications to early pneumothorax diagnosis”.
A.R. Bhandarkar, R. Banerjee and P. Seshaiyer, *Computational and Mathematical Methods in

55. "Numerical Modeling and Analysis of Fluid Structure Interaction in Application to Cerebral

56. “Modeling, Analysis and Computation of Fluid-structure interaction models for biological

57. “A sub-domain inverse finite element characterization of hyperelastic membranes including soft

58. “On the protective role of contact constraints in saccular aneurysms”, P. Seshaiyer and Jay D.

59. “Multiaxial mechanical behavior of human saccular aneurysms”, P. Seshaiyer, F. P. K. Hsu, A. D.
Shah, S. K. Kyriacou & J. D. Humphrey, *Computer Methods in Biomechanics and Biomedical


B.3 Education/Outreach/Curriculum

62. “Challenges and Opportunities from COVID-19 for Global Sustainable Development”, World Medical & Health Policy, P. Seshaiyer and C. McNeely (Accepted, 2020)


64. “Novel Frameworks for Upskilling the Mathematics Education Workforce,” P. Seshaiyer, Chapter in Mathematics Education for Sustainable Economic Growth and Job Creation: International Perspectives on Developing Countries, Taylor & Francis (Accepted, 2020).


75. "Leveraging Coach-Facilitated Professional Development to Create Collaborative Teacher Networks for Enhancing Professional Practice", APME, Chapter 7, pp 89 - 100 (2017).


B.4 ARTICLES IN REFEREED PROCEEDINGS


