

1. Rajaram R and Muthucumaraswamy R (2022), Numerical solution of radiative and viscous dissipative fluid flow along an oscillating vertical plate, *Symmetry*, Vol.14, pp.1-10
2. Loganathan S, Thamizhsudar M and Muthucumaraswamy R , (2022 June), Effects of Hall current on MHD flow past an exponentially accelerated inclined plate in the presence of rotation, *Periodico di Mineralogica*, Vol.91, No.3, pp. 175-187. (Ann-I)
3. Bhavani S, Chidambaram V, Muthucumaraswamy R, Shanmugam S, Essa F A, Ammar H Elsheikh, Selvaraj P, Janarthanan B (2022-April), Laplacian tactic for the prediction of the temperature components of solar cooker with logical prediction by Fuzzy rules, *Solar Energy*, Vol.36, pp.369-382.(**SCI**)
4. Sivakumar P and Muthucumaraswamy R, (2022), Radiation effects on parabolic flow past an infinite isothermal vertical plate with exponentially accelerated mass diffusion and chemical reaction, *GIS Science Journal*, Vol.9, No.1, pp.167-177.(**Scopus Indexed**)
5. Manjula L and Muthucumaraswamy R, (2021), Heat and Mass transfer effect on an infinite vertical plate in the presence of Hall current and thermal radiation with variable temperature, *International Journal of Applied Mechanics and Engineering*, Vol.26, No.3, pp.131-140.
6. Sivakumar P and Muthucumaraswamy R, (2021), Investigations of Skin-friction and rate of Heat and mass transfer effects on Parabolic flow past an infinite vertical plate in the presence of Thermal radiation with variable mass diffusion, *Journal of Xian University of Architecture & Technology*, Vol. XIII, Issue 8, pp. 375-387.
7. Gayathri V, Muthucumaraswamy R, Prabhu S and Farahani M R, (2021), Omega, Theta, PI, Sadhana Polynomials, and subsequent indices of convex Benenoid System, *Computational and Theoretical Chemistry*, 2021.(**SCI**)
8. Selvaraj A, Dilip Jose S, Muthumaraswamy R and Karthikeyan S, (2021), MHD Parabolic flow past an accelerated isothermal vertical plate with heat and mass diffusion in the presence of rotation, *Materials Today: Proceedings*, Vol. 46, pp.313-321.
9. Prabhakar Reddy B and Muthucumaraswamy R (2020), Effects of thermal radiation on MHD chemically reactive flow past an oscillating vertical porous plate with variable surface conditions and viscous dissipation, *i-manager's Journal on Future Engineering &Technology*, Vol.15, No.2.pp.8-18(**UGC listed**)
10. Manjula L and Muthucummaraswamy R (2020), Hall current and radiation effect with massdiffusion, on transient rotating MHD flow, *Malaya Journal of Matematik*, Vol.8, No. 4, pp.1434-1438, 2020.(**UGC Listed**)

11. Kumaar V D, Muthucumaraswamy R and Manjula L(2020), Hall effect unsteady flow² past an isothermal vertical plate in a rotating fluid with variable mass diffusion, in the presence of chemical reaction of first order, *Advances in Mathematics: Scientific Journal*. Vol.9, No.5, pp.2749–2759.**(Scopus Indexed)**.
12. Manjula L and Muthucumaraswamy R(2020), Transient hydromagnetic studies of rotating fluid on an infinite vertical plate with first order chemical reaction thermal radiation and hall effect, *Advances in Mathematics: Scientific Journal*, Vol.9,No.5, pp.2761–2772.**(Scopus Indexed)**.
13. Sivakumar P and Muthucumaraswamy R (2019), Skin-friction and rate of heat and mass transfer effects on MHD flow past a parabolic flow past an infinite vertical plate in the presence of thermal radiation and chemical reaction, *International Journal of Arts, Humanities and Social Studies*, Vol.1, Issue 1, pp.13-21, 2019.
14. Venkatesan J and Muthucumaraswamy R (2019), First order chemical reaction on flow past a parabolic started vertical plate with uniform heat flux and mass diffusion, *Tierärztliche Praxis*, Vol. 39(11), pages 94-105.
15. Venkatesan J and Muthucumaraswamy R (2019), Effects of chemical reaction on flow past a parabolic started vertical plate with uniform heat flux and variable mass diffusion *Tierärztliche Praxis*, Vol. 39(10), pages 73-85.
16. Radhakrishnan M and Muthucumaraswamy R (2019), Hydromagnetic effects on flow past an accelerated isothermal vertical plate with variable mass diffusion in the presence of chemical reaction of first order, *Journal of Applied Science and Computations*, Vol.6, No.4, pp. 2003-2013.
17. Muthucumaraswamy R and Velmurugan S (2018), MHD Flow Past a Parabolic Started Isothermal Vertical Plate with First Order Chemical Reaction, *Journal of Applied Science and Computations*, Vol 5, No.10, pp.1255-1265, IF: 5.8
18. Subbu Alias Suba and Muthucumaraswamy R, Soret Effect, Rotation Effect and MHD Effect on an impulsively started isothermal semi-infinite vertical plate, *International Journal of Pure and Applied Mathematics*, Vol.118, No.10,pp507-519,2018.IF: 0.49.
19. Vijayalakshmi K, Umadevi R and Muthucumaraswamy R (2018), Oscillating plate in nanofluid with uniform heat and mass flux under the effect of MHD, radiation and chemical reaction is analyzed by Runge-Kutta method, *TAGA Journal*, Vol.14, pp.793-803.
20. Chinthamani S, Gangadharan and Muthucumaraswamy R (2017), Upper bound of $H_3(1)$ for Universally Prestarlike Functions, *Asian Journal of Research in Social Sciences and Humanities*, Vol.7, No.3, pp.1244-1259.

21. Muthucumaraswamy R, Sundar raj M and Subramanian VSA (2017), Mass transfer effects on linearly accelerated vertical plate with heat flux and variable mass diffusion, *International Journal of Mathematical analysis*, Vol.9, No.1, pp. 15-21.
22. Tamizhsudar M and Muthucumaraswamy R (2017), MHD flow past an exponentially accelerated vertical plate with variable temperature in the presence of rotation and Hall current, *International Journal of Pure and Applied Mathematics*, Vol.116, pp.35-40.
23. Sivakumar P and Muthucumaraswamy R, (2016), Unsteady parabolic MHD flow past an infinite vertical plate with variable temperature in the presence of thermal radiation and chemical reaction, *Global Journal of Pure and Applied Mathematics*, Vol.12, pp.300-306.
24. Geetha E, Muthucumaraswamy R and Kothandapani M (2017), Effects of thermal radiation on an unsteady nanofluid flow past over a vertical plate, *International Journal of Pure and Applied Mathematics*, Vol.13, No.9, pp. 38-46.
25. Geetha E, Sharmila R and Muthucumaraswamy R (2017), Magneto Hydrodynamic effects on a transient nanofluid past over an vertical plate, *International Journal of Material Science*, Vol.2, No.2, pp. 321-334.
26. Thamizhsudar M, Muthucumaraswamy R and Bhuvanewari A K (2017), Heat and Mass transfer effects on MHD flow past an exponentially accelerated vertical plate in the presence of Rotation and Hall current, *Journal of Advanced Research in Dynamical and Control Systems*, Vol. 9, No.2, pp. 73-82.
27. Muthuracku alias Prema K and Muthucumaraswamy R (2017), On flow past an exponentially accelerated vertical plate with heat and mass transfer in the presence of Hall effect and rotation, *International Journal of Research-Granthaalayah*, Vol.5, pp.51-61, (IF : 4.321).
28. Dhananjeya Kumjar VSA and Muthucumaraswamy R. (2017), Hall effects on isothermal vertical plate with uniform mass diffusion in the presence of rotating fluid and chemical reaction of first order, *International Journal of Applied Mechanics and Engineering*, Vol.22, pp.111-121.
29. Muthucumaraswamy R and Jeyanthi L (2016), First order chemical reaction and Hall effect on MHD flow past an infinite vertical plate in the presence of rotating fluid with variable mass, *International Journal of Advanced Engineering, Management and Science*, Vol.12, pp.1963-1969.
30. Subbu (a) Suba, Saravanan B and Muthucumaraswamy R (2016), A Novel Approach on Unsteady MHD Radiative Flow Past An Impulsively Started Isothermal Semi-infinite Vertical Plate With Uniform Mass Flux in a Rotating System, *Asian Journal of Research in Social Sciences and Humanities*, Vol.7, pp.524-547.

31. Muthucumaraswamy R and Jeyanthi L (2016), Hall effects on MHD flow past an infinite vertical plate in the presence of rotating fluid with first order chemical reaction, Asian Journal of Research in Social Sciences and Humanities, Vol.6, pp.648-661.
32. Muthuracku alias Prema K and Muthucumaraswamy R (2016), Exact solution of unsteady flow past an accelerated infinite isothermal vertical plate with uniform mass diffusion, International Journal of Applied Mathematics and Mechanics, Vol.5, pp. 43-54.
33. Muthucumaraswamy R and Muthuracku alias Prema (2016), Hall effect on moving isothermal vertical plate with variable temperature and mass diffusion in the presence of rotating fluid, International Journal of Advanced Scientific Technologies in Engineering and Management Sciences, Vol.2, pp.6-13.
34. Sivakumar P and Muthucumaraswamy R. (2016), First order chemical reaction on parabolic flow past an infinite vertical plate with variable temperature and mass diffusion in the presence of external magnetic field and thermal radiation, International Journal for Innovation and Scientific Research, Vol.25, pp.466-477.
35. Muthucumaraswamy R and Muthuracku Alias Prema K. (2016), Heat and mass transfer effects on moving vertical plate with variable temperature and mass diffusion in the presence of Hall effect, J P Journal of Heat and Mass Transfer, Vol.13, pp.161-181.
36. Lakshmi V and Muthucumaraswamy R.(2016),MHD and thermal radiation effects on flow past a parabolic started infinite vertical plate with variable temperature and mass diffusion, Asian Journal of Research in Social Sciences and Humanities, Vol.6, pp.1-17.
37. Santhana Lakshmi C and Muthucumaraswamy R (2016), Chemical reaction effects past an exponentially accelerated isothermal vertical plate with uniform mass diffusion in the presence of magnetic field and Hall currents, Asian Journal of Research in Social Sciences and Humanities, Vol.6, pp.1783-1808.
38. Geetha E and Muthucumaraswamy R (2016), Free convective heat and mass transfer induced by a constant mass flux on a parabolic started vertical plate with variable temperature, International Journal of Advanced Scientific technologies in Engineering and Management sciences, Vol.2, pp. 12-16.
39. Lakshmi V and Muthucumaraswamy R. (2016), Hall effects and magnetic field effects on flow past a parabolic accelerated isothermal vertical plate with uniform mass diffusion in the presence of thermal radiation, International Journal of Multidisciplinary Research and Development, Vol. 3, pp. 232-241. (IF : 5.72)
40. Santhana Lakshmi C and Muthucumaraswamy R (2016), Thermal radiation and chemical reaction effects on exponentially accelerated vertical plate with variable temperature and uniform mass diffusion, International Journal of Engineering Sciences & Research Technology, Vol.5, pp. 321-332.

41. Muthucumaraswamy R and Sivakumar P (2016), MHD flow past a parabolic flow past an infinite isothermal vertical plate in the presence of thermal radiation and chemical reaction, *International Journal of Applied Mech. and Engg.*, Vol.21, pp. 95-105.
42. Muthucumaraswamy R and Muthuracku Alias Prema (2016), Hall effects on flow past an exponentially accelerated infinite isothermal vertical plate with mass diffusion, *Journal of Applied Fluid Mechanics*, Vol.9, pp.889-897.
43. Muthucumaraswamy R and Saravanan B. (2016), Finite difference analysis of thermal radiation and MHD effects on flow past an oscillating semi-infinite vertical plate with variable temperature and uniform mass flux, *Journal of App.Fluid Mech.*, Vol.9, pp.61-69.
44. Muthuracku Alias Prema and Muthucumaraswamy R (2015), Rotation effects on flow past an exponentially accelerated vertical plate with variable temperature and uniform mass diffusion in the presence of thermal radiation, *Journal of Applied Sciences Research*, Vol.11, pp.111-120.
45. Santhana Lakshmi C and Muthucumaraswamy R (2015), First order chemical reaction effects on exponentially accelerated isothermal vertical plate with variable mass diffusion in the presence of radiation, *Journal of Pharm. Sciences*, Vol.8, pp. 700-705.
46. Muthucumaraswamy R and Jeyanthi L (2015), Hall effects on MHD flow past an infinite vertical plate in the presence of rotating fluid of variable temperature and mass diffusion with first order chemical reaction, *ARPJ Journal of Engineering and Applied Sciences*, Vol. 10, pp.9596-9603.
47. Muthucumaraswamy R. and Muthuracku Alias Prema K (2015), Hall effects on MHD flow past an exponentially accelerated isothermal vertical plate with variable mass diffusion in the presence of rotating fluid, *Annals of Faculty of Engineering Hunedoara-International Journal of Engineering*, Vol.XIII, pp. 229-236.
48. Tamizhsudar M , Pandurangan J and Muthucumaraswamy R (2015), Hall effects and rotation effects on MHD flow past an exponentially accelerated vertical plate with combined heat and mass transfer effects, *International Journal of Applied Mechanics and Engineering*, Vol.20, pp. 605-616 (IF:1.35)
49. Santhana Lakshmi C S and Muthucumaraswamy R. (2015), Skin friction on thermal radiation and chemical reaction effects of an exponentially accelerated vertical plate with uniform mass diffusion, *Annals of Faculty of Engineering Hunedoara-International Journal of Engineering*, Vol.XIII, pp. 219-222.
50. Muthucumaraswamy R and Lakshmi V (2015), MHD effects on Radiative flow past a parabolic started isothermal infinite vertical plate in the presence of thermal radiation, *Advances and Applications of Fluid Mechanics*, Vol.18, pp. 51-65.

51. Muthucumaraswamy R and Sivakumar P (2015), First order chemical reaction effects on a parabolic flow past an infinite vertical plate with variable temperature and mass diffusion in the presence of thermal radiation, *ARPJ Journal of Engineering and Applied Sciences*, Vol.10, pp.5177-5184.
52. Muthucumaraswamy R and Santhana Lakshmi C (2015), First order chemical reaction on exponentially accelerated vertical plate with variable mass diffusion in the presence of thermal radiation, *International Journal of Applied Mechanics and Engineering*, Vol.20, pp. 329-344 (IF:1.35)
53. Muthucumaraswamy R and Sivakumar P. (2015), Hydromagnetic effects on Parabolic flow past an infinite isothermal vertical plate with variable temperature in the presence of thermal radiation and chemical reaction, *International Journal of Recent technology and Engineering*, Vol.4, pp.5-10.
54. Muthucumaraswamy R and Sivakumar P. (2015), Chemical reaction and Radiative effects on a parabolic flow past an infinite vertical plate with variable temperature and uniform mass diffusion, *International Journal of Applied Engineering Research*, Vol.10, pp. 6293-6304.
55. Muthucumaraswamy R and Velmurugan S. (2015), Chemical reaction effects on flow past a parabolic started vertical plate with variable temperature and mass diffusion in the presence of magnetic field, *Annals of Faculty of Engineering Hunedoara-International Journal of Engineering*, Vol.XIII, 175-179.
56. Sundarnath J.K. and Muthucumaraswamy R. (2015), Hall effects on MGD flow past an accelerated plate with heat transfer, *International Journal of Applied Mechanics and Engineering*, Vol.20, pp.171-181. (IF : 1.35)
57. Muthucumaraswamy R and Santhana Lakshmi C. (2014), Mass and heat transfer effects on MHD fluid flow of an exponentially accelerated isothermal vertical plate with variable mass diffusion, *Advances and Application in Fluid Mechanics*, Vol.18, pp.31-49.
58. Muthucumaraswamy R and Lakshmi V. (2014), Thermal radiation effects on unsteady MHD flow past a parabolic accelerated vertical plate with variable mass diffusion and uniform temperature, *International Journal of Applied Engineering Research*, Vol.9, pp.23909-23923
59. Muthucumaraswamy R. and Muthuracku Alias Prema K (2014), Thermal radiation and Hall effects on moving isothermal vertical plate with mass diffusion, *International Journal of Applied Engineering Research*, Vol.10, pp.30813-30829.
60. Muthucumaraswamy R and Jeyanthi L. (2014), Hall effects on MHD flow past an infinite vertical plate in the presence of rotating fluid of variable temperature and

uniform mass diffusion with first order chemical reaction, International Journal of Applied Engineering Research, Vol.10, pp. 26259-26271.

61. Santhana Lakshmi Chandran and Muthucumaraswamy R. (2014), Thermal radiation and Chemical reaction effects on MHD flow past an exponentially accelerated vertical plate with uniform mass diffusion, International Journal of Applied Engineering Research, Vol.10, pp. 20933-20949.
62. Neel Armstrong A and Muthucumaraswamy R (2014), Magnetohydrodynamic flow past a parabolic started infinite vertical plate with variable temperature and uniform mass diffusion, Journal of Mechanical Engineering Sciences, Vol.7, pp.1251-1260 (IF :0.561)
63. Muthucumaraswamy R and Saravanan B. (2014), Finite difference solution of unsteady flow past an oscillating semi-infinite vertical plate with variable surface temperature and uniform mass flux, International Journal of Applied Mechanics and Engineering, Vol.19. pp.709-724. (IF : 1.35)
64. Muthucumaraswamy R and Geetha E. (2014), Effects of parabolic motion of an isothermal vertical plate with constant mass flux, Ain Shams Engineering Journal, Vol.5, pp.1317-1323.
65. Muthucumaraswamy R and Sivakumar P (2014), Thermal radiation and first order chemical reaction on a parabolic flow past an infinite isothermal vertical plate with variable mass diffusion, Annals of Faculty of Engineering Hunedoara-International Journal of Engineering, Vol.XII, pp.255-260.
66. Muthucumaraswamy R and Lakshmi V. (2014), Thermal radiation effects on parabolic started infinite vertical plate with variable temperature and mass diffusion, Jokull Journal, Vol.64, pp.86-98.
67. Muthucumaraswamy R and Santhana Lakshmi, C (2014), Mass transfer and chemical reaction effects on MHD flow of an exponentially accelerated isothermal vertical plate with uniform mass diffusion, Jokull Journal, Vol.64, pp.107-123.
68. Muthucumaraswamy R., Thamizhsudar M and Pandurangan J. (2014), Hall effects on MHD flow past an exponentially accelerated vertical plate in the presence of rotation, Annals of Faculty of Engineering Hunedoara-International Journal of Engineering, Vol.XII, 145-148.
69. Muralidharan M and Muthucumaraswamy R. (2014), Parabolic started flow past an infinite vertical plate with uniform heat flux and mass diffusion, International Journal of Mathematical Analysis, pp.1265-1274 (Ann_II)
70. Muthucumaraswamy R. and Velmurugan S., (2014), Theoretical study of heat transfer effects on flow past a parabolic started vertical plate in the presence of chemical

reaction of first order, International Journal of Applied Mechanics and Engineering,8 Vol.19, pp.275-284.

71. Muthucumaraswamy R. and Sivakumar P. (2014), Radiative heat transfer effects on a parabolic flow past an infinite isothermal vertical plate in the presence of chemical reaction, International Journal of Engineering Sciences & Research Technology, Vol.3, pp.1354-1358 (IF : 1.852)
72. Muthucumaraswamy R. and Venkatesan J. (2014), Thermal radiation effects on flow past a parabolic started vertical plate with variable temperature and uniform mass flux, Far East Journal of Mathematical Sciences, Vol.83, pp.49-63 (Ann_II).
73. Muthucumaraswamy R. and Neel Armstrong A. (2014), On flow past a parabolic started infinite vertical plate with variable temperature and uniform mass diffusion, International Journal of Engineering Research, Vol.3, pp.79-82.
74. Muthucumaraswamy R. and Neel Armstrong A. (2014), Mass Transfer effects on flow past a parabolic started vertical plate with variable temperature and Mass diffusion, International Journal of Mathematical Archive, Vol.5, pp. 53-58.
75. Muthucumaraswamy R. and Lakshmi V. (2014), Radiative flow past a parabolic started isothermal vertical plate with uniform mass diffusion, International Journal of Applied Mechanics and Engineering, Vol.19, pp.195-202. (IF 1.35)
76. Muthucumaraswamy R. and Neel Armstrong A(2014), Magnetohydrodynamic flow past a parabolic started isothermal vertical plate with variable mass diffusion, International Journal of Engineering Sciences & Research Technology, Vol.3, pp.363-368 (IF: 1.852)
77. Muthucumaraswamy R and Saravanan B. (2014), Numerical study of MHD and radiation effects on flow past an oscillating isothermal vertical plate with uniform mass flux, has been published in International Journal of Innovative Research in Science, Engineering Technology, Vol.3, pp.9139-9155. (IF : 1.672)
78. Muthucumaraswamy R. and Velmurugan S. (2014), Hydromagnetic flow past a parabolic started vertical plate in the presence of homogeneous chemical reaction of first order, International Journal of Innovative research in Science, Engineering and Technology, Vol.3, pp.8483-8495.(IF: 1.672)
79. Geetha E and Muthucumaraswamy R. (2013), MHD and thermal radiation effects on linearly accelerated isothermal vertical plate with chemical reaction of first order, International Journal of Innovative research in Science, Engineering and Technology, Vol.2, pp.7150-7160, 2013. (IF : 1.672)
80. Muthucumaraswamy R and Venkatesan J. (2013), Radiative flow past a parabolic started isothermal vertical plate with uniform mass flux, International Journal of Mathematical Analysis, Vol.7, pp. 2907-2921.

81. Muthucumaraswamy R., Tina Lal and Ranganayakulu D., (2013), MHD flow past an accelerated vertical plate with variable heat and mass diffusion in the presence of rotation, *International Journal of Innovative Research in Sciences, Engineering and Technology*, Vol.2, pp.5671-5681.(IF: 1.672)
82. Muthucumaraswamy R and Geetha E.,(2013), MHD and chemical reaction effects on linearly accelerated vertical plate with variable temperature and mass diffusion in the presence of radiation, *International Journal of Mathematical Archive*,Vol.4, pp.293-306.
83. Muralidharan M and Muthucumaraswamy R. (2013), Radiation effects on linearly accelerated isothermal vertical plate with variable mass diffusion in the presence of magnetic field, *Applied Mathematical Sciences*, Vol.7, pp. 5645-5656.
84. Muthucumaraswamy R. and Velmurugan S. (2013), Unsteady flow past a parabolic started isothermal vertical plate with variable mass diffusion in the presence of chemical reaction of first order, *International Journal of Mathematical Archive*,Vol.4,pp.112-118.
85. Muthucumaraswamy R. and Geetha E. (2013), Chemical reaction effects on MHD flow past a linearly accelerated vertical plate with variable temperature and mass diffusion in the presence of thermal radiation, *International Journal of Applied Mechanics and Engineering*, Vol.18, pp.727-737.(IF:1.35)
86. Muthucumaraswamy R., Balachandran P. and Ganesan K. (2013), Mass transfer with chemical reaction on flow past an accelerated vertical plate with variable temperature and thermal radiation , *International Journal of Applied Mechanics and Engineering*, Vol.18, pp.945-953.(IF:1.35)
87. Muthucumaraswamy R., Dhanasekar N. and Easwara Prasad (2013), MHD and rotation effects on flow past an accelerated vertical plate with variable temperature and mass diffusion in the presence of chemical reaction, *International Journal of Applied Mechanics and Engineering*, Vol.18, pp.1087-1097 (IF 1.35)
88. Muralidharan M and Muthucumaraswamy R. (2013), Radiative flow past an accelerated vertical plate with variable temperature and uniform mass diffusion, *International Journal of Modeling and Optimization*, Vol.3, pp. 298-301.
89. Muthucumaraswamy R and Lakshmi V. (2013), On flow past a parabolic started isothermal vertical plate with variable mass diffusion in the presence of thermal radiation, *Annals of Faculty Engineering Hunedoara- International Journal of Engineering*, Vol. XI, pp.227-230.
90. Muthucumaraswamy R. and Velmurugan S. (2013), Heat and Mass transfer effects on flow past parabolic started isothermal vertical plate in the presence of first order chemical reaction, *Journal of Mechanical Engineering and Sciences*, Vol.4, pp. 431-439

91. Muthucumaraswamy R., Dhansekar N. and Eswara Prasad G. (2013), Hydromagnetic flow past an accelerated vertical plate in a rotating fluid with variable temperature and mass diffusion in the presence of homogeneous first order chemical reaction, *International Journal of Engineering Research & Technology*, Vol.2, pp.900-905.
92. Muthucumaraswamy R. (2012), MHD and radiative flow past an vertical oscillating plate with chemical reaction of first order, *Emirates Journal for Engineering Research*, Vol.18, pp.1-10.
93. Muthucumaraswamy R. and Velmurugan S. (2013), First order chemical reaction on flow past a parabolic started vertical plate with variable temperature and uniform mass diffusion, *Elixir Applied Mathematics*, Vol.59, pp.15543-15546.
94. Muthucumaraswamy R and Neel Armstrong A.(2013), Exact solution of unsteady flow past parabolic started isothermal vertical plate with variable mass diffusion, *Elixir Applied Mathematics*, Vol.59, pp.15625-15631
95. Muthucumaraswamy R. and Valliammal V.(2013), Hydromagnetic flow past an exponentially accelerated isothermal vertical plate with uniform mass diffusion in the presence of chemical reaction of first order, *International Journal of Applied Mechanics and Engineering*, Vol.18, pp. 259-267.
96. Muthucumaraswamy R. and Visalakshi V. (2013), MHD and Thermal radiation effects on exponentially accelerated isothermal vertical plate with uniform mass diffusion, *International Journal of Applied Mechanics and Engineering*, Vol.18, pp.599-608.
97. Muthucumaraswamy R., Dhanasekar N. and Easwara Prasad (2013), Rotation effects on unsteady flow past an accelerated isothermal vertical plate with variable mass transfer in the presence of chemical reaction of first order, *Journal of Applied Fluid Mechanics*, Vol.6, pp.485-490. (IF: 0.035)
98. Amutha K., Valliammal V. and Muthucumaraswamy R., (2013), Chemical reaction and MHD effects on flow past an exponentially accelerated vertical plate with variable temperature and mass diffusion, *Elixir Thermal Engineering*, Vol.60, pp. 16167-16170.
99. Muthucumaraswamy R and Saravanan B. (2013), Numerical solution of unsteady flow past an oscillating semi-infinite vertical plate with uniform mass flux, *Computational methods in Science and Technology*, Vol.19, pp.23-31.
100. Muthucumaraswamy R., Dhanasekar N. and Easwara Prasad G. (2013), Effects on first order chemical reaction on flow past an accelerated isothermal vertical plate in a rotating fluid with variable mass diffusion, *International Journal of Mathematical Archive*, Vol.3, pp. 28-35

101. Geetha E. and Muthucumaraswamy R. (2013), Radiation and chemical reaction effects on MHD flow past a linearly accelerated isothermal vertical plate with variable mass diffusion, *Elixir Mechanical Engineering*, Vol.55, pp.12989-12995.
102. Muthucumaraswamy R., Dhanasekar N. and Easwara Prasad (2012), Mass transfer effects on accelerated vertical plate in a rotating fluid with chemical reaction of first order, *Journal of Mechanical Engineering and Sciences*, Vol.3, pp.346-355.
103. Muthucumaraswamy R, Balachandran P. and Prasanth V, Ganesan K (2013), Homogeneous chemical reaction on unsteady flow past an accelerated vertical plate with variable temperature with thermal radiation, *Elixir Thermal Engineering* Vol. 54, pp. 12503-12506, 2013.
104. Muthucumaraswamy R. and Radhakrishnan M. (2012), Chemical reaction on flow past an accelerated vertical plate with variable temperature and mass diffusion in the presence of magnetic field, *Journal of Mechanical Engineering and Sciences*, Vol.3, pp.251-260.
105. Muthucumaraswamy R. and Amutha K. (2012), Thermal diffusion effects on MHD flow past an oscillating vertical plate with chemical reaction of first order, *International Journal of Mathematical Archive*, Vol.3, pp.4989-4996.
106. Nedunchelian R., Muthucumaraswamy R. and Saranathan E., (2012), Evaluation of Multi document summarization techniques, *Research Journal of Applied Sciences*
107. Muthucumaraswamy R. and Amutha K. (2012), Diffusion of chemically reactive species and heat transfer effects on accelerated vertical plate with uniform heat flux, *International e Journal of Mathematics and Engineering* ,Vol.187, pp. 1790-1798.
108. Muthucumaraswamy R., Dhanasekar N. and Easwara Prasad G., (2012), Chemical reaction effects on flow past an accelerated vertical plate with variable temperature in the presence of rotating fluid, *International e Journal of Mathematics and Engineering*, Vol.188, pp.1799-1809.
109. Muralidharan M and Muthucumaraswamy R.,(2012), MHD and radiative flow past an accelerated vertical plate with variable temperature and uniform mass diffusion, *International Journal of Applied Physics and Mathematics*, Vol.2, pp.266-269.
110. Muralidharan M and Muthucumaraswamy R. (2012), Exact solution of unsteady flow past an accelerated vertical plate with variable temperature and mass diffusion in the presence of thermal radiation , *International Journal of Applied Mechanics and Engineering*, Vol.17, pp.1213-1222
111. Muthucumaraswamy R. and Visalakshi V. (2012), Radiative flow past an exponentially accelerated vertical plate with variable temperature and mass diffusion in the presence of magnetic field, *International Journal of Mathematical Archive*, Vol.3, pp.2225-2233.

112. Muthucumaraswamy R., Dhanasekar N. and Easwara Prasad G. (2012), Rotation effects on flow past an accelerated isothermal vertical plate with chemical reaction of first order, International Journal of Mathematical Archive, Vo.3, pp. 2122-2129
113. Muthucumaraswamy R., Sundar Raj M and Subramanian V.S.A.(2012), Magnetic field effects on flow past an accelerated isothermal vertical plate with heat and mass diffusion, Journal of Engineering Annals of Faculty of Engineering Hunedoara-International Journal of Engineering, Vol. X, pp.177-180.
114. Sathappan KE and Muthucumaraswamy R. (2012), MHD effects on exponentially accelerated vertical plate with variable temperature and mass diffusion, International Journal of Applied Mechanics and Engineering, Vol.17, pp.289-297.
115. Nedunchelian R., Muthucumaraswamy R. and Saranathan E. (2012), Text Summarization for Multi documents using genetic Algorithms, International Journal of Soft computing, Vol.7, pp.20-23, 2012
116. Muthucumaraswamy R. and Valliammal V.(2012), MHD flow past an exponentially accelerated vertical plate with variable temperature and mass diffusion in the presence of chemical reaction of first order, Annals of faculty Engineering Hunedoara-International Journal of Engineering Vol.X, pp.151-154.
117. Muthucumaraswamy R. and Valliammal V.(2012), Effects of chemical reaction on flow past an exponentially accelerated vertical plate with variable temperature and Mass diffusion, International e Journal of Mathematics and Engineering, Vol.158, pp.1458-1466.
118. Muthucumaraswamy R. and Radhakrishnan M. (2012), MHD and chemical reaction effects on unsteady flow past an accelerated isothermal infinite vertical plate, International e Journal of Mathematics and Engineering, Vol.151, pp. 1382-1389.
119. Muthucumaraswamy R., Tinal Lal and Ranganayakulu D. (2011), MHD and rotation effects on flow past an accelerated isothermal vertical plate with variable mass diffusion, International Journal of Applied Mechanics and Engineering, Vol.16, pp.1071-1079.
120. Muthucumaraswamy R. and Nagarajan G.(2011), First order chemical reaction on MHD flow past an oscillating vertical plate in the presence of thermal radiation, International Journal of Applied Mechanics and Engineering, Vol.16, pp.1081-1091.
121. Sundar Raj M., Muthucumaraswamy R. and Subramanian V.S.A(2011), Hydromagnetic flow past an accelerated vertical plate with variable temperature and mass diffusion, International Journal of Applied Mechanics and Engineering Vol.16, pp.1181-1187.

- 122.Muthucumaraswamy R. and Valliammal V. (2010), Chemical reaction effects on flow past an exponentially accelerated vertical plate with variable temperature, International Journal of Automotive and Mechanical Engineering, Vol.2, pp. 231-238.
- 123.Muthucumaraswamy R. and Radhakrishnan M.(2011), MHD effects on unsteady flow past an accelerated vertical plate with variable temperature in the presence of chemical reaction, Res Engineeria, Vol.1, pp.1-5.
- 124.Muthucumaraswamy R. and Valliammal V.(2011), MHD Effects on flow past an exponentially accelerated isothermal vertical plate with variable mass diffusion in the presence of chemical reaction of first order, Res Engineeria, Vol.1, pp.24-289.
- 125.Muthucumaraswamy R. and Sathappan KE. (2011), Finite difference solution of Heat and Mass transfer effects on flow past an oscillating semi-infinite vertical plate with thermal radiation, Annals of Faculty of Hunedoara- International Journal of Engineering, Vol.IX, pp.115-122.
- 126.Muthucumaraswamy R. and Radhakrishnan M. (2011), First order chemical reaction effects on unsteady flow past an accelerated vertical plate with variable temperature and mass diffusion, Annals of faculty Engineering Hunedoara-International Journal of Engineering, Vol.IX, pp. 147-150.
- 127.Muralidharan M. and Muthucumaraswamy R. (2011), Hydromagnetic effects on flow past an accelerated isothermal vertical plate in the presence of thermal radiation, Annals of faculty Engineering Hunedoara-International Journal of Engineering ,Vol.IX, pp.489-491.
- 128.Muthucumaraswamy R. and Visalakshi V. (2011), Mass transfer and radiation effects on exponentially accelerated vertical plate with variable temperature, International e Journal of Mathematics and Engineering, Vol.128, pp. 1161-1168.
- 129.Muthucumaraswamy R., Rahul R. and Balachandran P.(2011), Radiation and first order chemical reaction effects on exponentially accelerated vertical plate, International Journal of Mathematical Sciences, Technology and Humanities, Vol.3, pp.25-36.
- 130.Sathappan KE and Muthucumaraswamy R. (2011), Radiation effects on exponentially accelerated vertical plate with uniform mass diffusion, International Journal of Automotive and Mechanical Engineering, Vol. 3, pp. 341-349.
- 131.Muthucumaraswamy R. and Ravi Shankar M. (2011), First order chemical reaction and thermal radiation effects on unsteady flow past an accelerated isothermal infinite vertical plate, Indian Journal of Science and Technology, Vol. 4, pp.573-577.
- 132.Muthucumaraswamy R., Sundar Raj M. and Subramanian V.S.A. (2011), Flow past an accelerated infinite vertical plate with variable temperature and mass diffusion, International e Journal of Mathematics and Engineering, Vol. 128, pp. 1161-1168.

132. Muthucumaraswamy R., Sundar Raj M and Subramanian, (2011), Unsteady MHD flow past an accelerated vertical plate with variable temperature and mass diffusion, International Journal of Contemporary Science, Engg. and Tech., Vol.2, pp.11-18.
133. Muthucumaraswamy R. and Radhakrishnan M.(2011), Flow past an accelerated vertical Plate with variable temperature in the presence of chemical reaction, Contemporary Engineering Sciences, Vol.2, pp.1-10.
- 134 . Muthucumaraswamy R. and Balachandran P.(2011), Radiation effects on flow past an accelerated isothermal vertical plate with variable mass diffusion in the presence of chemical reaction, International e Journal of Mathematics and Engineering, Vol.133, pp.1209-1219.
135. Muthucumaraswamy R and Visalakshi V. (2011), Radiation flow past an exponentially accelerated vertical plate with variable temperature and mass diffusion, Annals of faculty Engineering Hunedoara-International Journal of Engineering, Vol.IX, pp.137-140.
136. Sathappan KE. and Muthucumaraswamy R.(2011), Numerical Study of hydromagnetic effects on flow past an oscillating semi-infinite isothermal vertical plate with uniform mass diffusion in the presence of thermal radiation, Acta Technica Corviniensis-Bulletin of Engineering, Vol.IX, pp.151-156.
137. Muthucumaraswamy R, Nagarajan G. and Subramanian V.S.A.(2011), Thermal radiation and MHD effects on flow past an vertical oscillating plate with chemical reaction of first order, Acta Technica Corviniensis-Bulletin of Engg., Vol.IV, pp.97-101
138. Muthucumaraswamy R. and Manivannan K.(2011), First order chemical reaction on Isothermal vertical oscillating plate with variable mass diffusion, International Journal of Pure and Applied Sciences and Technology, Vol. 3, pp. 19-26.
139. Nedunchelian R., Muthucumaraswamy R. and Saranathan E. (2011), Comparison of Multidocument summarization Techniques, International Journal of Computer Science and Network Security, Vol. 11, pp. 155-160.
140. Kulandaivel T. and Muthucumaraswamy R. (2011), Radiation effects on unsteady moving semi-infinite vertical plate in the presence of chemical reaction, Acta Technica Corviniensis- Bulletin of Engineering, Vol.IV, pp.31-38.
- 141 Muthucumaraswamy R., Tinal Lal and Ranganayakulu D. (2011), Rotation effects on MHD vertical plate with variable temperature and uniform mass diffusion, Annals of faculty Engineering Hunedoara-International Journal of Engineering, Vol.IX, pp.229-234
142. Muthucumaraswamy R, Nagarajan G. and Subramanian V.S.A.(2011), Chemical reaction

and radiation effects on vertical oscillating plate with variable temperature and mass diffusion, International Journal of Applied Mechanics and Engineering, Vol.16, pp.435-446. 15

143. Muthucumaraswamy R. and Radhakrishnan M.(2011), Heat transfer effects on flow past an accelerated vertical plate with chemically reactive species, International Journal of Applied Mechanics and Engineering, Vol.16, 447-454.
144. Prasad V.R., Bhaskar Reddy N., Muthucumaraswamy R. and Vasu B. (2011), Finite difference analysis of radiative free convection flow past an impulsively started vertical plate with variable heat and mass flux, Journal of Applied Fluid Mechanics, Vol.4, pp. 59-68.
145. Muthucumaraswamy R. and Vijayalakshmi A. (2010), Heat transfer by radiation and MHD flow over a moving vertical plate with variable mass diffusion, International Journal of Applied Mathematics and Physics, Vol.2, pp. 39-44
146. Mageswari J., Muthucumaraswamy R. and Pandurangan J.(2010), Effects of MHD on moving vertical plate in the presence of thermal radiation and chemical reaction of first order, International e Journal of Mathematics and Engineering, Vol.106, pp.974-980.
147. Muthucumaraswamy R. (2010), Thermal radiation and MHD effects on isothermal vertical oscillating plate with uniform mass diffusion, International e Journal of Mathematics and Engineering, Vol. 82, pp. 800-808.
148. Muthucumaraswamy R. and Valliammal V. (2010), Study of flow past an exponentially accelerated isothermal vertical plate in the presence of chemical reaction, Theoretical Applied Mechanics, Vol.37, pp. 251-262.
149. Muthucumaraswamy R., Tina Lal and Ranganayakulu D. (2010), Effects of rotation on MHD flow past an accelerated isothermal vertical plate with heat and mass diffusion, Theoretical Applied Mechanics, Vol.37, pp.189-202.
150. Muthucumaraswamy R., and Meenakshisundaram S.(2010), MHD effects on moving Vertical plate in the presence of chemical reaction and thermal radiation, International e Journal of Mathematics and Engineering, Vol. 88, pp. 837-845.
151. Muthucumaraswamy R. Visalakshi V. (2010), Mass transfer effects on exponentially accelerated isothermal vertical plate in the presence of thermal radiation, Pacific-Asian Journal of Mathematics, Vol.4, pp.11-19.
152. Muthucumaraswamy R., Sundar Raj M. and Subramanian V.S.A. (2010), Heat transfer effects on accelerated vertical plate with variable temperature and mass flux, ACTA Technica Corviniensis- Bulletin of Engineering, Vol. III, pp. 31-34.
153. Muthucumaraswamy R.(2010), Chemical reaction effects on vertical oscillating plate with

variable temperature, Chemical Industry and Chemical Engineering Quarterly, Vol.16, 16 pp.167-173.

154. Sathappan KE., Muthucumaraswamy R. and Natarajan R (2010), The study of flow past an exponentially accelerated vertical plate with variable temperature and mass diffusion, International Journal of Engineering-Annals of Faculty of Engineering Hunedoara, Vol.VIII, pp.35-38
155. Vijayalakshmi A.R. and Muthucumaraswamy R. (2010), Effects of first order chemical reaction on flow past an oscillating semi-infinite vertical plate, International Journal of Engineering-Annals of Faculty of Engineering Hunedoara, Vol.VIII, pp.173-179.
156. Kulandaivel T. and Muthucumaraswamy R. (2010), Free convection flow of a dusty gas past a semi-infinite vertical plate with heat flux, International Journal of Engineering-Annals of Faculty of Engineering Hunedoara, Vol.VIII, pp. 209-214.
157. Muthucumaraswamy R, Nagarajan G. and Subramanian V.S.A.(2010), MHD effects on oscillating vertical plate in the presence of chemical reaction of first order, International Journal of Engineering -Annals of Faculty of Engineering Hunedoara, Vol.VIII, pp.220-225.
158. Muthucumaraswamy R. and Chandrakala P. (2010), Chemical reaction effects on MHD flow past an impulsively started semi-infinite vertical plate, International Journal of Mathematical Sciences, Vol.9, pp.259-277.
159. Muthucumaraswamy R., Sundar Raj M and Subramanian,(2011) Magnetohydrodynamic convective flow past an accelerated isothermal vertical plate with variable mass diffusion, International Journal of Applied Mechanics and Engineering, Vol.16, pp. 885-891.
160. Muthucumaraswamy R. and Vijayalakshmi A. (2010), Radiation and chemical reaction Effects on isothermal moving vertical plate with variable mass diffusion, International Review of pure and Applied Mathematics, Vol.6, pp.31-39.
161. Muthucumaraswamy R, Nagarajan G. and Subramanian V.S.A. (2010), Hydromagnetic effects on oscillating vertical plate with variable temperature and chemical reaction, Journal of scientific computing, Vol.4, pp.11-15.
162. Muthucumaraswamy R. and Visalakshi V. (2009), Thermal radiation on exponentially accelerated vertical plate with variable temperature and mass flux, International Journal of Fluid Mechanics, Vol.1, pp.159-166.
163. Muralidharan M and Muthucumaraswamy R. (2010) Thermal radiation on linearly accelerated vertical plate with variable temperature and uniform mass flux, Indian Journal of Science and Technology, Vol.3, pp.398-401.

164. Nedunchelian R., Muthucumaraswamy R. and Saranathan E. (2010), An approach of the 17

Naive Bayesian classifier for the summarization of frequently used documents implemented using time stamps., *Journal of Advanced Research in Computer Engineering*, Vol.4, pp.47-54.

165. Muthucumaraswamy R. and Muralidharan M. (2010), Radiative Heat transfer effects on linearly accelerated isothermal vertical plate with mass diffusion, *Journal of Engineering Annals of Faculty of Engineering Hunedoara*, Vol. 7 pp.167-172.

166. Muthucumaraswamy R. (2010), Exact solution of thermal radiation on vertical oscillating plate with variable temperature and mass flux, *Theoretical Applied Mechanics*, Vol.37, pp.1-15.

167. Sathappan KE, Muthucumaraswamy R. and Natarajan R.(2009), Free convective flow past an exponentially accelerated vertical plate with variable temperature and uniform mass flux, *International Journal of Fluid Mechanics*, Vol.1, pp.89-95.

168. Muthucumaraswamy R. and Muralidharan M. (2009), Thermal radiation effects on linearly accelerated isothermal vertical plate with uniform mass flux, *International Journal of Computational Intelligence Research & Applications*, Vol.3, pp 241-244.

169. Muthucumaraswamy R., Sathappan KE and Natarajan R, (2010), Diffusion and Heat transfer effects on exponentially accelerated vertical plate with variable temperature, *Thermal Science*, Vol.14, pp.73-77.

170. Muthucumaraswamy R., Sathappan KE and Natarajan R (2009), Radiation effects on flow past an exponentially accelerated isothermal vertical plate with mass flux, *International Journal of Applied Mechanics and Engineering*, Vol.14, pp.1029-1038.

171. Muthucumaraswamy R. and Radhakrishnan M. (2009), Mass transfer with a chemical reaction on unsteady flow past an accelerated isothermal infinite vertical plate, *Journal of Engineering Annals of Faculty of Engineering Hunedoara*, Vol. VII, pp. 262-265.

172. Muthucumaraswamy R. and Valliammal V. (2009), First order chemical reaction on exponentially accelerated isothermal vertical plate with mass diffusion, *Journal of Engineering Annals of Faculty of Engineering Hunedoara*, Vol. VII, pp.47-50.

173. Muthucumaraswamy R. and Vijayalakshmi AR, (2010), MHD and chemical reaction on flow past an impulsively started semi-infinite vertical plate with thermal radiation, *International Journal of Applied Mechanics and Engineering*, Vol.15, pp.161-174

174. Nedunchelian R., Muthucumaraswamy R. and Saranathan E. (2009), Multi document summarization techniques, *Journal of Advanced Research in Computer Engineering*, Vol. 3, pp. 91-100.

175. Muthucumaraswamy R. (2009), MHD effects on flow past an infinite oscillating vertical plate in the presence of an optically thin gray gas, Journal of Engineering Annals of Faculty of Engineering Hunedoara, Vol.VII, pp. 119-124.
176. Muthucumaraswamy R., Sathappan KE and Natarajan R. (2008) MHD flow past an exponentially accelerated infinite vertical plate with variable temperature, The Global Journal of Applied Mathematics and Mathematical Sciences, pp.109-114.
177. Kulandaivel T., Loganathan P. and Muthucumaraswamy, (2009) Chemical reaction on moving vertical plate with constant mass flux in the presence of radiation, International Journal of Applied Mathematics and Mechanics, Vol.5, pp.84-95.
178. Muthucumaraswamy R., Sundar Raj M. and Subramanian V.S.A. (2009), Heat and Mass transfer effects on flow past an accelerated vertical plate with variable mass diffusion, International Journal of Applied Mathematics and Engineering Sciences, Vol.3, pp.55-60.
179. Muthucumaraswamy R., Sundar Raj M and Subramanian V.S.A. (2009), Unsteady flow past an accelerated infinite vertical plate with variable temperature and uniform mass diffusion, International Journal of Applied Mathematics and Mech., Vol.5, pp.51-56.
180. Muthucumaraswamy R and Nagarajan G. (2009), Thermal radiation effects on vertical oscillating plate in the presence of first order chemical reaction, International Journal of Materials Research, Electronics and Electrical systems, Vol.2, pp. 73-83.
181. Muthucumaraswamy R., Sundar Raj M and Subramanian V.S.A, (2009) Exact solution of flow past an accelerated infinite vertical plate with heat and mass flux, International Journal of Applied Mechanics and Engineering, Vol.14, pp. 585-592.
182. T.Kulandaivel, R.Muthucumaraswamy and P.Loganathan, (2009) Chemical reaction on moving vertical plate with variable temperature and constant mass flux in the presence of thermal radiation, International Journal of Applied Mechanics and Engineering Vol. 14, pp. 373-387.
183. Muthucumaraswamy R, K.Manivannan and Thangaraj V, (2009) Effects of chemical reaction on isothermal vertical oscillating plate in the presence of thermal radiation, International Journal of Mathematical Sciences, Vol.8, pp. 55-65.
184. Muthucumaraswamy R., Sathappan KE and Natarajan R., (2009) Unsteady Flow past an exponentially accelerated infinite isothermal vertical plate with uniform mass flux, International Journal of Mathematical Sciences, Vol.8, pp.67-73.

185. Ramachandraprasad. V, Bhaskar Reddy N and Muthucumaraswamy R (2009), Radiation effects on MHD unsteady free convection flow with mass transfer past a vertical plate with variable surface temperature and concentration, *Journal of Energy Heat and Mass transfer*, Vol.31, pp.239-260.
186. Muthucumaraswamy R., Sundar Raj M and Subramanian V.S.A, (2008) Mass transfer effects on linearly accelerated vertical plate with heat flux and variable mass diffusion, *International Journal of Applied Mathematical Analysis and Applications*, Vol.3, pp.145-151.
187. Muthucumaraswamy R., Sathappan KE and Natarajan R., (2008) Flow past an exponentially accelerated vertical plate with heat and mass flux, *International Journal of Applied Mechanics and Engineering*, Vol.13, pp.979-986.
188. Muthucumaraswamy R., Sathappan KE and Natarajan R., (2008) Heat transfer effects on flow past an exponentially accelerated vertical plate with variable temperature, *Theoretical Applied Mechanics*, Vol.35, pp.323-331.
189. Muthucumaraswamy R., Sathappan KE and Natarajan R., (2008) Heat and Mass transfer effects on exponentially accelerated vertical plate with uniform magnetic field, *Journal of Engineering Annals of Faculty of Engineering Hunedoara*, Vol. VI, pp. 188-193.
190. Muthucumaraswamy R., Kulandaivel T. and Loganathan P. (2009), Radiation and MHD effects on moving infinite vertical plate in the presence of chemical reaction of first order, *International Journal of Mathematics and Analysis*, Vol.1, pp.1-11.
191. Muthucumaraswamy R., Kulandaivel T. and Loganathan P., Radiation effects on unsteady moving semi-infinite vertical plate in the presence of chemical reaction, *International Journal of Computing & Applications* (Accepted)
192. Muthucumaraswamy R, Nagarajan G. and Subramanian V.S.A, (2007) Chemical reaction effects on oscillating isothermal vertical plate in the presence of magnetic field, *International Journal of Applied Mathematical Analysis and Applications*, Vol.3, pp.105-116.
193. Muthucumaraswamy R. and Vijayalakshmi A. (2009) Magnetohydrodynamic flow past an oscillating vertical plate in the presence of an optically thin gray gas, *International Journal of Fluid Mechanics*, Vol.1, pp.1-8.
194. Manivannan K., Muthucumaraswamy R. and Thangaraj V. (2009) Radiation and chemical reaction effects on isothermal vertical oscillating plate with variable mass diffusion, *Thermal Science*, Vol.13, pp. 155-162.
195. Muthucumaraswamy R., Maheswari J. and Pandurangan J., (2008) Unsteady MHD flow past an impulsively started semi-infinite vertical plate in the presence of chemical reaction, *International Review of Pure and Applied Mathematics*, Vol.4, pp.119-133.

- 196.Muthucumaraswamy R., Sathappan KE and Natarajan R., (2008) Mass Transfer effects on exponentially accelerated isothermal vertical plate, International Journal of Applied Mathematics and Mechanics, Vol.4, pp.19-25.
- 197.Muthucumaraswamy R., Sathappan KE and Natarajan R.(2008), Convective flow past an exponentially accelerated vertical plate with heat flux and variable mass diffusion, International Journal of Computational Intelligence: Research and Applications Vol.2, pp.29-35.
- 198.Muthucumaraswamy R, K.Manivannan and Thangaraj V., (2008) Magnetohydrodynamic effects of flow past an vertical oscillating plate in the presence of chemical reaction, International Journal of Scientific Computing, Vol.2, pp.51-59.
- 199.Loganathan P., Kulandaivel T. and Muthucumaraswamy R., (2008) First order chemical reaction on moving semi-infinite vertical plate in the presence of optically thin gray gas, International Journal of Applied Mathematics and Mechanics, Vol.4, pp.26-41
- 200.Muthucumaraswamy R. and Kulandaivel T., (2008) Radiation effects on moving vertical plate with variable temperature and uniform mass diffusion, Journal of Energy Heat and Mass Transfer, Vol.30, pp.79-88.
- 201.Muthucumaraswamy R, Manivannan K and Thangaraj V., Chemical reaction effects on infinite vertical plate with uniform heat flux and variable mass diffusion, International Review of Pure and Applied Mathematics, Vol.3, pp.263-272, 2007.
- 202.Muthucumaraswamy R. and Meenakshisundaram S., Heat transfer on vertical oscillating plate with mass flux in the presence of an optically thin gray gas, International Review of Pure and Applied Mathematics, Vol.3, pp.273-282, 2007.
- 203.Muthucumaraswamy R., Kulandaivel T. and Loganathan P.(2007), MHD Effects on moving vertical plate in the presence of chemical reaction of first order, International Journal of Mathematics and Analysis, Vol.5-8, pp.257-266.
- 204.Muthucumaraswamy R. and Meenakshisundaram S., (2008) MHD and radiation effects on moving vertical plate with mass diffusion in the presence of chemical reaction, Indian Journal of Mathematics and Mathematical Sciences, Vol.4, pp.125-135
- 205.Muthucumaraswamy R., K.Manivannan and Thangaraj V. (2007), Mass transfer effects on vertical oscillating plate with heat flux, Theoretical Applied Mechanics , Vol.34, pp.309 -322.
- 206.Muthucumaraswamy R. and Janakiraman B (2007), Diffusion and thermal radiation effects on isothermal vertical oscillating plate, International Journal of Applied Mechanics and Engineering, Vol.12, pp.1093-1101.
- 207.Muthucumaraswamy R. and Chandrakala P. (2008), Thermal radiation and MHD effects on moving isothermal vertical plate with mass diffusion, Indian Journal of Mathematics and Mathematical Sciences, Vol.4, pp.1-14.

- 208.Muthucumaraswamy R. and Vijayalakshmi A. (2008), Effects of heat and mass transfer on flow past an oscillating vertical plate with variable temperature, International Journal of Applied Mathematics and Mechanics, Vol.4, pp.59-65.
- 209.Muthucumaraswamy R. and Janakiraman B. (2008), Mass transfer effects on isothermal vertical oscillating plate in the presence of chemical reaction, International Journal of Applied Mathematics and Mechanics, Vol.4, pp.66-74.
- 210.Muthucumaraswamy R. and Meenakshisundaram S. (2006), Theoretical study of chemical reaction effects on vertical oscillating plate with variable temperature, Theoretical Applied Mechanics, Vol.33, No.3, pp.245-257.
- 211.Muthucumaraswamy R. (2006), Radiative flow past an infinite vertical oscillating plate with variable temperature and mass diffusion, International Journal of Mathematics and Analysis, Vol.4, pp.35-46.
- 212.Muthucumaraswamy R., (2007), Radiative flow past an infinite isothermal vertical oscillating plate with variable mass diffusion, International Journal of Applied Mathematics and Engineering Sciences, Vol.1, pp.229-237.
- 213.Ramachandraprasad. V, Bhaskar Reddy N and Muthucumaraswamy R.(2007), Radiation and mass transfer effects on two-dimensional flow past an impulsively started infinite vertical plate, International Journal of Thermal Sciences, Vol. 46, pp. 1251-1258.
- 214.Muthucumaraswamy R. and Chandrakala P. (2007), Radiation effects on unsteady MHD flow past an impulsively started semi-infinite vertical plate with mass diffusion, International Journal of Applied Mechanics and Engineering, Vol.12, pp.1073-1091.
- 215.Muthucumaraswamy R.(2006), The interaction of thermal radiation on vertical oscillating plate with variable mass diffusion, Theoretical Applied Mechanics, Vol.33, No.2, pp.107-121.
- 216.Muthucumaaswamy R, Mageswari and Pandurangan (2007), Study of MHD and radiation effects on moving vertical plate with variable temperature and mass diffusion, International review of pure and Applied Mathematics, Vol.3, pp.95-103.
- 217.Muthucumaraswamy R. (2009), Heat and Mass transfer effects on moving isothermal vertical surface in the presence of magnetic field, The Math. Education, Vol.XLIII, pp.50-56.
- 218.Muthucumaraswamy R. and Vijayalakshmi A. (2006), Radiation and chemical reaction on moving vertical plate with variable temperature and uniform mass diffusion, International Journal of Mathematics and Analysis, Vol.3, pp.63-71.
- 219.Muthucumaraswamy R. and Chandrakala P. (2006), Thermal radiation effects on moving vertical plate with chemical reaction, International review of pure and Applied Mathematics, Vol.2, pp.1-12.

220. Ramachandraprasad V., Bhaskar Reddy N. and Muthucumaraswamy R. (2006) , Transient radiative hydromagnetic free convection flow past an impulsively started vertical plate with uniform heat and mass flux, *Theoretical Applied Mechanics*, Vol.33, No.1, pp.31-63.
221. Ramachandraprasad V., Bhaskar Reddy N. and Muthucumaraswamy R. (2008), Finite difference analysis of radiation effects on MHD free convection flow with mass transfer past a semi-infinite vertical plate in the presence of heat source or sink, *International review of pure and Applied Mathematics*, Vol.2, pp.141-160.
222. Muthucumaraswamy R. and Janakiraman B., (2006) MHD and radiation Effects on isothermal vertical plate with variable mass diffusion, *Theoretical Applied Mechanics*, Vol.33, pp.1-11.
223. Muthucumaraswamy R., Chandrakala P. and Antony Raj S. (2006), Radiative heat and mass transfer effects on moving isothermal vertical plate in the presence of chemical reaction, *International Journal of Applied Mechanics and Engineering*, Vol.11, pp.639-646.
224. Muthucumaraswamy R. and Vijayalakshmi A. (2005), Radiation effects on flow past an impulsively started vertical plate with variable temperature and mass flux, *Theoretical Applied Mechanics*, Vol.32, pp.223-234.
225. Muthucumaraswamy R. and Chandrakala P. (2005), Effects of thermal radiation on moving vertical plate in the presence of an optically thin gray gas, *Engineering Research*, Vol.69, pp.205-208.
226. Muthucumaraswamy R. and Vijayalakshmi A. (2005), Hydromagnetic flow past an impulsively started infinite vertical plate with variable temperature and mass diffusion, *Journal of Engineering Physics and Thermophysics*, Vol.78, pp.131-135.
227. Muthucumaraswamy R. and Chandrakala P. (2004), MHD effects on moving vertical plate with homogeneous chemical reaction, *International Review of Pure and Applied Mathematics*, Vol.1, pp.47-58, 2005.
228. Muthucumaraswamy R. and Kulandaivel T. (2005), MHD effects on impulsively started infinite vertical isothermal plate with variable mass diffusion, *Bulletin of the Allahabad Mathematical Society*, Vol.20, pp.67-78.
229. Muthucumaraswamy R. and Chandrakala P. (2003), MHD flow past an impulsively started vertical plate with variable temperature and uniform mass diffusion, *Journal of Energy Heat and mass transfer*, Vol.25, pp. 243-251
230. Muthucumaraswamy R. and Senthil Kumar G. (2004), Heat and mass transfer effects on moving vertical plate in the presence of thermal radiation, *Theoretical Applied Mechanics*, Vol.31, pp.35-46.

- 231.Muthucumaraswamy R. (2003), Effects of chemical reaction on moving isothermal vertical plate with variable mass diffusion, Theoretical Applied Mechanics, Vol.30, pp.209-220.
- 232.Muthucumaraswamy R. (2004), Chemical reaction and heat and mass transfer effects on moving vertical plate in the presence of magnetic field, Far East Journal of Applied Mathematics, Vol.14, pp.77-88.
- 233.Muthucumaraswamy R. (2004), Natural convection on flow past an impulsively started vertical plate with variable surface heat flux, Far East Journal of Applied Mathematics, Vol.14, pp.99-119.
- 234.Muthucumaraswamy R. and Kulandaivel T. (2003), Chemical reaction effects on moving infinite vertical plate with uniform heat flux and variable mass diffusion, Engineering Research, Vol.68,pp.101-104.
- 235.Muthucumaraswamy R and Kulandaivel T. (2004), MHD effects on moving isothermal vertical surface with uniform mass flux, The Mathematics Education, Vol. XXXVIII, pp.196-201.
- 236.Muthucumaraswamy R, Siddharth V. and Santhosh P. (2004), Chemical reaction on moving infinite vertical plate with variable temperature, International Journal of Applied Mechanics and Engineering, Vol.9, pp.423-430.
- 237.Muthucumaraswamy R. and Senthil Vadivel V.U. (2004), Heat transfer effects on moving vertical surface in the presence of magnetic field, The Mathematics Education, Vol. XXXVIII, pp.20-29.
- 238.Muthucumaraswamy R. and Ganesan P. (2003), Radiation effects on flow past an impulsively started infinite vertical plate with variable temperature, International Journal of Applied Mechanics and Engineering, Vol.8, pp.125-129
- 239.Muthucumaraswamy R. (2002), Effects of suction on heat and mass transfer along a moving vertical surface in the presence of chemical reaction, Engineering Research, Vol.67, pp.129-132.
240. Muthucumaraswamy R. and Ganesan P. (2002), Heat transfer effects on flow past an impulsively started semi-infinite vertical plate with uniform heat flux, Nuclear Engineering Design, Vol.215, pp.243-250.
- 241.Muthucumaraswamy R., Ganesan P. and Soundalgekar V.M. (2001), The study of flow past an impulsively started isothermal vertical plate with variable mass diffusion, Journal of Energy, Heat and Mass Transfer, Vol.23, pp.63-72.
- 242.Muthucumaraswamy R. and Ganesan P. (2002), Natural convection on moving isothermal vertical plate with chemical reaction, Journal of Engineering Physics and Thermophysics, Vol.75, pp.86-90.

243. Muthucumaraswamy R. (2002), Effects of chemical reaction on moving isothermal vertical surface with suction, *Acta Mechanica*, Vol.155, pp.65-70.
244. Muthucumaraswamy R., Rajesh Kumar B. and Raghuraman D.R.S. (2002), Hydromagnetic flow on continuously moving horizontal surface with uniform heat flux, *Journal of Institution of Engineers*, Vol.83, pp.36-39.
245. Muthucumaraswamy R. and P.Ganesan P. (2002), Diffusion and first-order chemical reaction on impulsively started infinite vertical plate with variable temperature, *International Journal of Thermal sciences*, Vol.41, pp. 475-479.
246. Rajesh Kumar B, Raghuraman D.R.S. and Muthucumaraswamy R, (2002), Note on Hydromagnetic flow and heat transfer on a continuously moving vertical surface, *Acta Mechanica*, Vol.153, pp.249-253.
247. Muthucumaraswamy R. and Ganesan P. (2001), Effect of the Chemical reaction on flow characteristics in an unsteady upward motion of an isothermal plate, *Journal of Applied Mechanics and Technical Physics*, Vol.42, pp.665-671.
248. Muthucumaraswamy R. and Ganesan P. (2001), First-order chemical reaction on flow past an impulsively started vertical plate with heat and mass flux, *Acta Mechanica*, Vol.147, pp.1-13.
249. Muthucumaraswamy R., Ganesan P. and Soundalgekar V.M. (2001), On flow of a viscous incompressible fluid past an impulsively started semi-infinite vertical plate, *Int. Journal of Thermal Sciences*, Vol.40, pp.297-302.
250. Muthucumaraswamy R., Ganesan P. and Soundalgekar V.M. (2001), Impulsively started vertical plate with variable surface temperature and uniform mass flux, *The Bulletin of Guwathi University Mathematical Association*, Vol.36, pp.37-49.
251. Muthucumaraswamy R., Ganesan P., and Soundalgekar V.M. (2001), Heat and mass transfer effects on impulsively started vertical plate, *Acta Mechanica*, Vol.146, pp.1-8.
252. Muthucumaraswamy R., Ganesan P. and Soundalgekar V.M. (2001), An exact solution of flow past an impulsively started vertical plate with heat flux and variable mass transfer, *Indian Journal of Mathematics*, Vol.43, pp.85-97.
253. Muthucumaraswamy R., Ganesan P. and Soundalgekar V.M. (2000), Theoretical solution of flow past an impulsively started vertical plate with variable temperature and mass diffusion, *Forschung im Ingenieurwesen-Engg. Research*, Vol.66, pp.147-151.
254. Muthucumaraswamy R. and Ganesan P. (2000), On impulsive motion of a vertical plate with heat flux and diffusion of chemically reactive species, *Forschung im*

255. Muthucumaraswamy R. and Ganesan P. (2000), Flow past an impulsively started vertical plate with constant heat flux and mass transfer, *Computer Methods in Applied Mechanics and Engineering*, Vol.187, pp.79-90.
256. Muthucumaraswamy R. and Ganesan P. (1999), Finite difference solution of flow past an impulsively started vertical plate with variable surface temperature, *Differential equations and Dynamical systems*, Vol.7, pp.419-436.
257. Muthucumaraswamy R. and Ganesan P. (1999), Flow past an impulsively started vertical plate with variable surface temperature and mass flux, *Heat and Mass Transfer*, Vol.34, pp.487-493.
258. Muthucumaraswamy R. and Ganesan P. (1999), Mass transfer effects on impulsively started vertical plate with variable surface heat flux, *Forschung im Ingenieurwesen-Engineering Research*, Vol.65, pp.200-206.
259. Muthucumaraswamy R. and Ganesan P. (1998), Unsteady flow past an impulsively started isothermal vertical plate with constant mass flux, *Journal of Energy, Heat and mass Transfer*, Vol.20, pp.141-148.
260. Muthucumaraswamy R. and Ganesan P. (1998), Unsteady flow past an impulsively started vertical plate with heat and mass transfer, *Heat and Mass Transfer*, Vol.34, pp.187-193.

PAPERS PRESENTED IN CONFERENCES (25: National: 9 and International: 16)

1. Muthucumaraswamy R., Abstract definition of functional dependency, *Proceedings of the International Conference on Automation*, 12-14 December 1995, pp.127-130, Indore, India.
2. Muthucumaraswamy R. and Ganesan P., Numerical solution of flow past an impulsively started vertical plate with heat and mass flux, *Proceedings of the Fourth ISHMT/ASME Heat and Mass Transfer Conference*, 12-14 Jan. 2000, pp.507-511, Pune.
3. Muthucumaraswamy R. and Ganesan P., Numerical study of flow past an impulsively started vertical plate with variable surface heat and mass flux, *Proceedings of 5 th ISHMT/ASME Heat and Mass transfer Conference*, Jadavpur University, Kolkatta, 2-5 January, pp. 319-322, 2002.
4. Muthucumaraswamy R. and Chandrakala P., Radiation and free convection effects on moving isothermal vertical plate with uniform mass flux, *Conference on Computational Methods in Continuum Mechanics*, 11-12 January, 2006. Anna University, Chennai

5. Vijayalakshmi A. and Muthucumaraswamy R., MHD flow past an Oscillating vertical plate with variable temperature and mass diffusion in the presence of radiation, International conference on Frontiers in Fluid Mechanics, 26-28 October, 2006, Bangalore, India.
6. Maheswari J., Muthucumaraswamy R. and Pandurangan J., MHD effects on moving vertical plate in the presence of thermal radiation and chemical reaction, International conference on Frontiers in Fluid Mechanics, October 26-28, 2006, Bangalore, India.
7. Pravin Chandrasekaran and Muthucumaraswamy R., Improving the Efficiency of low-level Decision Making in Robosoccer using boosted SVM, IEA-AIE 2008, Poland. The same appeared in, Studies in Computational Intelligence-New Challenges in Applied Intelligence, pp. 55-64, 2008(Springer).
8. Harish Chandra Soundarrajan, Jagannathan Raman and Muthucumaraswamy R , Modified Particle swarm optimizer with adaptive dynamic weights for cancer combinational chemotherapy, Proceedings of the 4th International Conference on Advanced Data Mining and Applications, Lecture Notes in Artificial Intelligence, Vol.5139, pp.563-571, 2008.
9. Nedunchelian R., Muthucumaraswamy R. and Saranathan E., Comparison of standard and Optimized K-means in SQL, Proceedings of the International Conference on Data Mining(DMIN 09), pp.538-542, 2009.
10. Muralidharan M. and Muthucumaraswamy R., Mass transfer effects on flow past an accelerated vertical plate in the presence of thermal radiation, National conference on Applied Mathematics (NCAM 2010), B.S.Abdur Rahman University, 28-29 January 2010.
11. Sathappan KE, Muthucumaraswamy R. and Natarajan R., Hydromagnetic flow past an exponentially accelerated infinite vertical plate with variable temperature and uniform mass diffusion, Proceedings of National conference on Applied Mathematics (NCAM 2010), B.S.Abdur Rahman University, pp. 55-58, 2010.
12. Vijayalakshmi A.R. and Muthucumaraswamy R., MHD effects on moving isothermal vertical plate and diffusion of a chemically reactive species, Proceedings of National conference on Applied Mathematics (NCAM 2010), B.S.Abdur Rahman University, pp. 55-58, 2010.
13. Muralidharan M. and Muthucumaraswamy R., Radiative flow past an accelerated vertical plate with variable temperature and uniform mass diffusion, International Conference on Mathematics of Date, 31 Dec 2010 to 4 January 2011, Allahabad.
14. Muthucumaraswamy, First order chemical reaction on isothermal vertical oscillating plate with variable mass diffusion, International conference on Global Environment and its sustainability: Implications and Strategies, Vivekananda College, Chennai, 8th November, 2010.

15. Nedunchelian R, Muthucumaraswamy R. and Saranathan E. Multi document Text Summarization Techniques, Proceedings of Conference on Recent Advances in Biomaterials, Saveetha University, 17-18 December, 2010.
16. Muthucumaraswamy R., Dhanasekar, and Easwaraprasad G., First order chemical reaction on flow past an accelerated isothermal vertical plate in a rotating fluid, Proceedings of the National Conference on Mathematical Techniques and its Applications, SRM University, pp.77-86, 8-9 February 2012.
17. Muralidharan M. and Muthucumaraswamy R, MHD and radiative flow past an accelerated vertical plate with variable temperature and uniform mass diffusion, Proceedings of National conference on Mathematical and Computational Sciences, Adikavi Nannaya University, pp.1-6, 6-7 July 2012, Rajahmundry, Andhra Pradesh.
18. Muthuracku Alias Prema and Muthucumaraswamy R. Rotation effects on flow past an exponentially accelerated vertical plate with variable temperature and uniform mass diffusion in the presence of thermal radiation, Proceedings of first national conference on Technological Advances in Mechanical Engineering (TAME 2015), pp.52-60, 20 August 2015.
19. Dr R Muthucumaraswamy, Professor and Head/AM, delivered an invited talk titled “Hall effects on unsteady flow past an isothermal vertical plate in a rotating fluid” in International Conference on Pure and Applied Mathematics at Sri Chandrasekarendra Saraswathi Viswa Mahavidyalaya University, Kanchipuram, 19-20th February 2018.
20. Ms A Subbu (a) Suba, Assistant Professor and Muthucumaraswamy R, Professor and Head, presented a paper titled “Computational Manipulation of Radiative MHD flow along a semi-infinite vertical plate with Hall current and Chemical reaction in the presence of rotating fluid, 10th National conference on Mathematical Techniques and Applications- 2018, SRM institute of Science and Technology, 5-6 January 2018.
21. Mr Sudhakar P K (Research Scholar) and Muthucumaraswamy R, Professor and Head, presented a paper titled “Integrated Analytical approach to make to stock inventory and Scheduling”, International Conference on Mathematical Sciences and Applications, Sacred Heart College (Autonomous), Tirupattur, 27-29 January 2020.
22. Mr S Dilip Jose, A. Selvaraj, R. Muthucumaraswamy, S. Karthikeyan, E. Jothi, presented a paper titled “Flow Past An Accelerated isothermal vertical plate With Variable Temperature And Uniform Mass Diffusion In The Presence Of Rotation”, International Conference on Mathematical Modeling and Computational Science, 14-15, August 2020.
23. Manjula L and R Muthucumaraswamy, presented a paper titled “Variable temperature and Uniform mass diffusion on MHD flow with Hall effect and Thermal radiation, International Virtual Conference on Progress in Mathematics Towards Industrial Applications, SRM Institute of Science and Technology, 6-7 November 2020.

24. Dilip Jose S, Selvaraj A, Muthucumaraswamy R, Karthikeyan S and Jothi E, MHD Parabolic Flow Past an Accelerated isothermal vertical plate with Variable temperature and Uniform Mass Diffusion In The Presence Of Rotation, Proceedings of First International Conference on Mathematical Modelling and Computational Science, pp.417-428, May 2021.
25. Muthucumaraswamy R and Gayathri V, 4-Counting Polynomials and Successive Indices in Supercoronene, International Conference on Advancement in Applicable Mathematics, SIVET College, 7th March 2022.
26. Ms V Gayathri, S Prabhu and R Muthucumaraswamy, On Certain Counting Polynomials of Cycloparaphenylenes, International Conference on Recent Strategies in Mathematics and Statistics, Stella Maris College, 19-21 May 2022.

Member of Editorial Boards

- (i) Member of the editorial board of **International Journal of Contemporary Science, Engineering and Technology**
- (ii) Member of the editorial board of **British Journal of Engineering and Technology, 2012.**

Role of reviewer

My name is included in the review panel of the following international Journals. I have reviewed 101 papers.

1. Mass transfer with heterogeneous chemical reaction in Falkner-Skan flow of a power law fluid". My name is included in the review panel of International Journal of **CHEMICAL ENGINEERING COMMUNICATIONS, Berkeley, USA.**
2. MHD Mixed free-forced heat and mass convective flow past a semi-Infinite vertical plate for high temperature and concentration differences by the presence of radiation, **Canadian Journal of Physics, Canada.**
3. Finite difference analysis of unsteady free convection and mass transfer boundary layer flow past an accelerated infinite vertical porous flat plate with suction **Bulletin of Malaysian Mathematical Society, Malaysia.**
4. Analytical solution of hydromagnetic boundary layer flow of a non-Newtonian power-law fluid past a continuously moving surface, **Acta Mechanica, Germany.**
5. Transient Non-Boussinesq MHD free convection flows over a vertical surface, **International Journal of Fluid Mechanics Research, USA**

6. Mixed convection about a horizontal cylinder in a porous medium using the thermal non-equilibrium model, **International Journal of Fluid Mechanics Research, USA.**
7. MHD flow and heat transfer in a visco-elastic liquid over a Stretching sheet with non-uniform source, **Proceedings of the 2nd IMT-GT Conference on Mathematics, Statistics and their Applications, Penang, Malaysia.**
8. Unsteady MHD flow of an optically thin gray gas in the presence of radiation, **Physics Letters A.**
9. Effect of the chemical reaction and radiation absorption on the Unsteady MHD free convection flow past a semi-infinite vertical Permeable moving plate with heat source and suction, **Communications in Non-linear Science and Numerical simulations.**
10. Free convection flow past an impulsively started vertical plate with Chemical reaction, **Meccanica.**
11. MHD mixed convection and mass transfer from a vertical stretching sheet with diffusion of chemically reactive species and space or temperature dependent heat source, **Canadian Journal of Physics.**
12. Combined Effect of MHD and Radiation on Power-Law Fluids over a Horizontal plate Embedded in a porous medium, **Canadian Journal of Physics.**
13. A Unified approach to an analytical solution of hydromagnetic flow of a radiating fluid over an oscillating plate with variable temperature and mass diffusion, **Non-linear Analysis-Modelling and Control.**
14. Effect of Stenosis length on flow characteristics across rectangular Stenotic models, **International Journal of Fluid Mechanics.**
15. Radiation effects on MHD flow of a chemically reacting fluid past a vertical plate with viscous dissipation, **Journal of Energy Heat and Mass Transfer.**
16. Numerical solution of Heat and Mass transfer effects of an unsteady MHD free convective flow past an infinite vertical plate with constant suction” for **Journal of Energy Heat and Mass Transfer.**
17. An unsteady oscillatory flow of the second order visco elastic fluid through a porous medium in parallel plate geometry due to a pulsating pressure gradient, **International Journal of Fluid Mechanics.**
18. The effect of viscous dissipative heat on three dimensional oscillatory flow with periodic suction velocity, **Indian Journal of Science and Technology.**

19. Influence of radiation and non-uniform heat source on unsteady MHD free convection flow past an infinite heated vertical plate in porous medium with the time dependent suction and viscous dissipation, **International Journal of Heat and Mass Transfer**.
20. Convective flow past a vertical plate under the influence of Magnetic field and thermal radiation subjected to a variable surface temperature in the presence of heat source/sink” , **Non-linear Analysis: Modeling and Control**
21. MHD Oscillatory Flow of a second-grade Fluid in a Channel as well as Heat and Mass Transfer due to a Bio-Chemical Reaction, **International Journal of Heat and Mass Transfer, 2010**
22. Chemical reaction and MHD effects on free convection flow with variable temperature and mass diffusion, **Non-linear Analysis-Modeling & Control, 2010**.
23. Unsteady MHD free convection and mass transfer flow of thermally radiating and Chemically reacting fluid past a vertical porous plate with variable temperature and Viscous dissipation, **Journal of Energy, Heat and Mass Transfer, 2010**.
24. Mathematical modeling of thermal radiation effects on transient gravity-driven Optically thick gray convection flow along an inclined plane, **Chemical Engineering Communications, 2010**.
25. Soret and Radiation Effects on Transient MHD Free Convection from an Impulsively Started Infinite Vertical Plate, **Int. Journal of Heat and Mass transfer, 2010**.
26. Mass transfer over an unsteady stretching surface with variable chemical reaction and suction/injection, **Meccanica, 2010**.
27. Radiation effects on MHD flow past an infinite vertical plate with variable temperature and mass diffusion, **Journal of Energy Heat and Mass transfer, 2010**.
28. Hall current and soret effects on unsteady MHD flow over a vertical moving porous plate with double diffusive convection radiation interaction, **International Journal of Heat and Mass Transfer, 2011**.
29. Chemical reaction effects on MHD free convective poiseuille flow and mass transfer through a porous medium bounded by two infinite vertical porous plate, **Non-linear Analysis-Modeling and Control, 2011**.
30. Hall effects on MHD mixed convection flow past an infinite vertical porous plate with mass transfer, **Journal of Energy Heat and Mass Transfer, 2011**.

31. Effects of Homogeneous and heterogeneous reactions on unsteady solute dispersion in composite porous medium”, submitted for publication in **Heat Transfer Engineering, 2011.** 31
32. Unsteady MHD double diffusive convection Boundary layer flow past a radiate hot vertical surface in porous media in the presence of chemical reaction and heat sink, **Meccanica, 2011.**
33. The effects of chemical reaction, Hall and ion-slip currents on MHD micropolar fluid Flow with thermal diffusivity using a novel numerical technique, **Journal of Applied Mathematics, 2011.**
34. Effects of chemical reaction on flow past an exponentially accelerated vertical plate with variable mass diffusion, **Chamchuri Journal of Mathematics, 2011.**
35. Mass transfer on a continuous flat plate moving in parallel or reversely to a free stream in presence of chemical reaction, **International Journal of Heat and Mass Transfer, 2011.**
36. Soret and Dufour effects on transient double diffusive free convection of couple stress fluid past vertical cylinder, **Engineering Applications of Computational Fluid Mechanics, 2012(Hong Kong).**
37. Influence of chemical reaction on MHD free convective flow past an infinite vertical oscillating plate”, **Chemical Industry & Chemical Engineering Quarterly, 2012(Serbia)**
38. Numerical Analysis of mixed convection through an internally finned tube, **Engineering Applications of Computational Fluid Mechanics, 2012(Hong Kong)**
39. Effects of thermal diffusion and chemical reaction on unsteady MHD mixed Convection flow past a radiative vertical porous plate embedded in a porous medium, **Heat Transfer Research, USA, 2012.**
40. Finite element analysis of Hall current in the presence of radiation on MHD flow of a dissipative and chemically reacting fluid”, submitted for publication in **Journal of Energy, Heat and Mass Transfer, 2012, India (IITM, Chennai)**
41. Unsteady free convection heat and mass transfer in a Walters-B Viscoelastic flow past a semi-infinite vertical plate with variable temperature and concentration-Numerical study, **Journal of Energy, Heat and Mass Transfer, 2012, India (IITM, Chennai)**
42. Unsteady MHD flow and heat transfer over a moving flat plate in the vertical direction, **Journal of Engineering Mathematics (Springer), 2012.**

43. Thermophoresis effect on forced convection heat and mass transfer of micropolar fluid past a continuously moving porous plate with variable viscosity and heat generation/absorption, **Asia-Pacific Journal of Chemical Engineering**, 2013
44. The electromagnetic field with a vertical magnetic dipole in a three layered, **Science Journal of Physics**, 2013.
45. Effect of chemical reaction on a transient MHD flow past a suddenly started infinite vertical plate with thermal diffusion and radiation”, submitted for publication in **Springer Plus on line Journals**, 2013.
46. Soret effect on Oscillatory MHD convective flow through a porous medium in a vertical channel with thermal radiation and heat source/sink, **Journal of Energy, Heat and Mass Transfer**, June 2013, India (IITM, Chennai)
47. Effect of chemical reaction on MHD flow of a visco-elastic fluid through porous medium, **Journal of Applied Analysis and Computation**, Dec 2013.(China)
48. Investigation of flow fields around 2D rectangular cylinder under turbulent flow by LES, **Engineering Applications of Computational Fluid Mechanics**, 2014 (Hong Kong)
49. Hydromagnetic heat transfer flow of a viscous incompressible fluid past an exponentially accelerated vertical plate with variable surface temperature, **Journal of Energy Heat and Mass transfer**, 2014 (Mar) (IITM Chennai)
50. Transient flow past a moving vertical plate with ramped heat and mass fluxes, **Journal of Thermophysics and Heat transfer**, 2014(Apr)
51. Thermal stratification effects on transient convective flow of a nanofluid past a vertical plate ”, submitted for publication in “**Asia Pacific Journal of Chemical Engineering**, 2014(Apr)
52. Oscillatory behavior of solutions of generalized homogeneous and non-homogeneous neutral α -difference equations, National Conference on Mathematical techniques and Applications, SRM University, June 2014.
53. Symmetries of Burgers equation, National Conference on Mathematical techniques and Applications, SRM University, June 2014.
54. Existence of periodic solutions to fourth-order neutral delay functional differential equation, National Conference on Mathematical techniques and Applications, SRM University, June 2014.

55. An initial value method for singularly perturbed Neumann boundary value problem for 33 delay differential equations with discontinuous source term, National Conference on Mathematical Techniques and Applications, SRM University, June 2014.
56. Magnetohydrodynamic oscillatory Stokes flow past a porous sphere”, submitted for publication in **Elixir International Journal**, July 2014.
57. Rotation and Radiation effects on MHD convection flow in a vertical channel with span wise sinusoidal fluctuating temperature ”, submitted publication in “**Journal of Energy, Heat and mass transfer**”, IITM, Chennai, Aug 2014.
58. Reviewed a research proposal titled “Study of Darcian and Non-Darcian porous medium with heat and mass transport: A Convective Mathematical flow modeling”, submitted for the purpose of PhD registration at Rajiv Gandhi University, Arunachal Pradesh., Aug 2014.
59. **Heat and mass transfer over a vertical plate with radiation**, Submitted for publication in “**Journal of Scientific Research Reports**, Sep. 2014.
60. “**Journal of Energy, Heat and mass transfer**”, IITM, Chennai, Aug 2014.
61. Effect of chemical reaction on an unsteady MHD free convection radiating flow near on an infinite vertical porous plate with hall current, Submitted for publication in “**Journal of Energy, Heat and Mass transfer**”, 2015.
62. MHD flow of Kuvshiniski fluid through porous medium with temperature gradient heat source, Submitted for publication in **Journal of Energy, Heat and Mass transfer**, Sep. 2015.
63. Chemical reaction and radiation absorption effects on MHD mixed convective flow in a vertical Wavy porous channel, **Journal of Energy, Heat and Mass transfer**, Nov. 2015.
64. Effects of Thermal Radiation and Radiation Absorption on Flow Past an Impulsively Started Infinite Vertical Plate with Newtonian Heating and Chemical Reaction , Submitted for publication in “**Open Journal of Fluid Dynamics**, Nov. 2015.
65. Chemical reaction and radiation effects on unsteady MHD micropolar fluid flow over a vertical plate with variable temperature, **Frontiers in Heat and Mass Transfer**, Nov 2015.
66. Steady MHD Fluid Flow in a Bifurcating Rectangular Porous Channel, **Advances in Research**, April 2016.
67. Accelerated micropolar fluid flow past an uniformly rotating circular cone, “**AIP Advances**”, September 2016

68. Transient free convective MHD flow past an exponentially accelerated vertical porous plate with variable temperature through a porous medium, **International Journal of Engineering Mathematics**, Oct. 2016. 34
69. On the issue of the concept of the hidden mass energy in Engineering and Cosmology, **Open Journal of Fluid Dynamics**, Oct. 2016.
70. Magneto-Thermal convection stability of molten potassium in inclined cylindrical annulus, **Journal of Applied Fluid Mechanics**, Oct 2016.
71. Mixed convection flow of Casson fluid over a stretching sheet with convective boundary conditions and Hall effect, **Asian Research Journal of Mathematics**, December 2016.
72. Diffusion-thermo and Thermo-diffusion effects on MHD fluid over non-linearly stretching sheet through a non-Darcy porous medium, **Asian Research Journal of Mathematics**, December 2016.
73. Free convection slip flow with diffusion-thermo in a convectively vertical porous channel, **Journal of Applied Physical Science International**, February 2017.
74. Theoretical Analysis and Experimental Fitting of Three Dimensional Free Surface of Electrospinning", **Open Journal of Fluid Dynamics**, February 2017.
75. Steady-state radial flow modeling through the production well in the confined aquifer of Monzougoudo, Benin, **Open Journal of Fluid Dynamics**, April 2019.
76. Boundary layer control of a radiative Casson fluid past a permeable rigid-plate with unimolecular chemical reaction, **Latin American Applied Research-An International Journal**, June 2019.
77. Recommendations for Queue Management during health pandemics: A Queuing Theory Perspective, **Asian Journal of Research in Computer Science**, November 2020.
78. Secure Piggy backed key Exchange Management by using Newtons' Interpolation method for web documents, NCASM 2020, December 2020.
79. Magnetoconvection on the double diffusive Al₂O₃ water nanofluid in a porous medium filled an annular space between vertical cylinders with discrete heat flux, **Journal of Applied Fluid Mechanics**, December 2020.
80. Numerical investigation of Heat transfer & Hall effects on MHD nanofluid past over an oscillating plate with radiation, **Journal of Thermal Engineering**, March 2021
81. Collatz Conjecture Provez, **Journal of Scientific Research and Reports**, March 2021.

82. MATERIAL BEHAVIOUR IN MICROPOLAR FLUID OF BROWNIAN MOTION OVER A STRETCHABLE DISK WITH APPLICATION OF THERMOPHORETIC FORCES AND DIFFUSION-THERMO, **Journal of Naval Architecture and Marine Engineering,**

35

April 2021

83. Effects of Temperature Dependent Viscosity and Thermal Conductivity of a Micro polar fluid over a stretching surface with radiation, **Calcutta Mathematical Society,** June 2021.
84. An efficient waste Management technique with IOT based Garbage system, **Materials Today: Proceedings,** July 2021.
85. Analysis of Effect of Inclined Magnetic Field on MHD Boundary Layer Flow over a porous Exponentially Stretching Sheet subject to Thermal Radiation, **Asian Research Journal of Mathematics,** October 2021.
86. A study on Binomial Transform of the Generalized Sixth order Pell Sequence, **Asian Journal of Pure and Applied Mathematics** November 2021.
87. The Beauty of Mathematics: Learning Mathematics by Questioning, **Journal of Education, Society and Behavioral science,** December 2021.
88. Estimation of Dynamic Viscosity for Cobalt Oxide/Glycol Nano fluid, **Chemical Science International Journal,** January 2022.
89. Quaternions Algebra by using Brackets of Complex numbers, **Asian Journal of Pure and Applied Mathematics,** January 2022.
90. Impact of Inclined magnetic force on Bio-fluid in Permeable Bifurcated Arteries: Analytical Approach, **Journal of Nanofluids,** March 2022.
91. MHD flow past a vertical plate of Casson fluid with heat and mass transfer effects, **South East Asian Journal of Mathematics and Mathematical Sciences,** March 2022.
92. Effects of Temperature Dependent Viscosity and thermal Conductivity of a Micro polar fluid over a stretching surface with radiation, **Calcutta Mathematical Society,** March 2022.
93. Equal and odd values of Generalized Euler Functions, **Journal of Advance in Mathematics and Computer Science,** 28th March 2022.
94. Automation in Enterprise Resource Planning (ERP) for excellence in Higher Education, **IEEE-International Conference on Computer Science and Applications,** GIET University, Odisha, April 2022

95. Brain Tumor Detection Using Deep Learning in Medical Image Analysis, **IEEE-36 International Conference on Computer Science and Applications**, GIET University, Odisha, April 2022
96. LEAFLET PATHOGENS PRUNING (LPPr) – A Novel Segmentation Algorithm in Detecting Jasmine Plant Diseases through Leaf images **IEEE-International Conference on Computer Science and Applications**, GIET University, Odisha, April 2022,
97. Validation of an Information Diffusion based Health Social Media on Yoga and Ayurveda, **IEEE-International Conference on Computer Science and Applications**, GIET University, Odisha, April 2022
98. Students' Grading system by Fuzzy approach, **IEEE-International Conference on Computer Science and Applications**, GIET University, Odisha, April 2022
99. Numerical experiments of subsonic jet flow simulations using RANS with OpenFOAM, **Open Journal of Fluid Dynamics**, May 2022.
100. Effect of **Williamson** parameter on Cu-water **Williamson** Nanofluid over a vertical plate, **International Communications in Heat and Mass Transfer**, June 2022.
101. Approximation results for solution of Stochastic hard soft constrained convex feasibility problem, **Asian Journal of Mathematics and Computer Research**, June 2022.
102. Analysis of heat source and chemical reaction on an arterial blood flow over a horizontal porous medium with stenosis under the influence of an inclined magnetic field, **Bulletin of Calcutta Mathematical Society**, July 2022.

SLST Lectureship

Qualified in State Level Screening Test for Lecturers, conducted by the University of Madras in 1990.

Computer proficiency

Languages known : FORTRAN and C

Softwares used : MS Word, FORCE, Latex and MATLAB

Lecture Notes Published

1. Lecture notes on "Problems and solutions of Z-Transforms"
2. Lecture notes on "Problems and solutions of Fourier Transforms"
3. Lecture notes on Probability and Queuing Theory
4. Lecture notes on Problems and Solutions of Transforms and PDE

Authored a Book

Dr R Muthucumaraswamy, Professor and Head, authored a Book titled "**Transforms and Partial Differential Equations**", Yes Dee Publishing Pvt Ltd., Chennai, 2017.

The text book covers the contents of Mathematics-III (Autonomous-SVCE) and Anna University syllabus for III semester students of BE/BTech (Common to all branches).

Dr R Muthucumaraswamy, Professor and Head, authored a Book titled “**Transforms and Partial Differential Equations**”, Yes Dee Publishing Pvt Ltd., Chennai, 2018. Second Edition. The text book covers the contents of Mathematics-III (Autonomous-SVCE) and Anna University syllabus for III semester students of BE/BTech (Common to all branches).

Books Reviewed and Published

Dr R Muthucumaraswamy, Professor and Head, reviewed the following books for publication

1. Engineering Mathematics-II, Spectrum All in One series, SIA Publishers and Distributors Pvt Ltd, Hyderabad, 2019.
2. Numerical Methods, Spectrum All in One series, SIA Publishers and Distributors Pvt Ltd, Hyderabad, 2019 and 2020(revised)
3. Discrete Mathematics, Spectrum All in One series, SIA Publishers and Distributors Pvt Ltd, Hyderabad, 2019.
4. Engineering Mathematics-I, Spectrum All in One series, SIA Publishers and Distributors Pvt Ltd, Hyderabad, 2019.
5. Statistics and Numerical Methods, Spectrum All in One series, SIA Publishers and Distributors Pvt Ltd, Hyderabad, 2020.
6. Probability and Random Processes, Spectrum All in One series, SIA Publishers and Distributors Pvt Ltd, Hyderabad, 2020

PhD Guide ship

1. Recognized as a Research Supervisor for guiding PhD research scholars of Anna University under the faculty of Science and Humanities in the area(s) of **Theoretical and Computational Fluid Dynamics** (No.61.117.20).
2. Recognized PhD supervisor in
 Bharathidasan University, Coimbatore (Two students)
 Bharath University(one student)
 Sri Chandrasekharendra Saraswathi Viswa Maha Vidyalaya, Kanchipuram (one student)
 Manonmaniam Sundaranar University, Thirunelveli (five students)
 Periyar University, Salem (Two students)
 Dravidian University, AP (one student)
 External Ph.D. co-guide in Alagappa University –Three students
 External Ph.D. guide in University of Madras – one student

Doctoral committee member in

PhD Guidance

(a) No of Students Guided (External/co-guide): 26 (16)

1. **Dr A Vijayalakshmi**, Convective Heat and Mass Transfer Effects on Vertical Plate, Alagappa University, 2008(PI & Co-Guide)
2. **Dr P Chandrakala**, Free Convective Heat and Mass Transfer Effects on Moving Vertical Plate, University of Madras, 2008 (PI & External Guide)
3. **Dr. J Maheswari**, Some MHD free convective flows on vertical plates, Anna University, 2008 (PI & co-investigator)
4. **Dr. K.Manivannan**, Heat and Mass transfer effects on Oscillating vertical plate, University of Madras, 2009. (PI & Co-investigator).
5. **Dr KE Sathappan**, Heat and Mass transfer effects on exponentially accelerated vertical plate, Alagappa University , 2010 (Role: PI & Co-Guide)
6. **Dr T Kulandaivel**, Chemical reaction effects on moving vertical plate with heat and mass transfer, Anna University, 2010(PI & External Guide and co-author)
7. **Dr M Sundar Raj**, Studies on linearly accelerated vertical plate in the presence of heat and mass transfer, Alagappa University, 28.1.2011(PI & Co-Guide)
8. **Dr G Nagarajan**, Heat transfer effects on oscillating vertical plate with mass diffusion, Alagappa University, 10.6.2011 (PI & Co-Guide)
9. **Dr S Meenakshisundaram**, Theoretical study of heat and mass transfer effects on vertical plate, 2011, Bharat University (Role: Guide)
10. **Dr P Balachander**, Thermal radiation effects on accelerated vertical plate in the presence of chemical reaction of first order, 2012 SRM University (Role: PI & co-author)
11. **Dr V Valliammal**, Studies on exponentially accelerated vertical plate in the presence of heat and mass transfer with chemical reaction, Sri Chandrasekharendra Saraswathi Viswa MahaVidyalaya, Kanchipuram (Guide), March 2013.
12. **Dr M Radhakrishnan**, Theoretical solution of linearly accelerated infinite vertical plate with heat and Mass transfer, Bharathiar University, September 2014 (Guide).

13. **Dr E Geetha** , First order chemical reaction and MHD effects on linearly accelerated vertical plate in the presence of thermal radiation, Manonmaniam Sundaranar University, Tirunelveli, October 2014.(Guide)
14. **Dr Tina Lal**, Rotation effects on unsteady flow past an impulsively started vertical plate in the presence of heat and mass transfer, Manonmaniam Sundaranar University, Tirunelveli 2015 (PI and co-investigator)
15. **Dr M Muralidharan**, Exact solution of flow past an accelerated vertical plate with heat and mass transfer, Sathyabama University, June 2015 (Guide).
16. **Dr J Venkatesan**, Parabolic flow past an infinite vertical plate with heat and mass flux, SVCE(Anna University), July 2015 (Guide).
17. **Dr N Dhanasekar**, First order chemical reaction and MHD effects on unsteady flow past an accelerated vertical plate in a rotating fluid, Manonmaniam Sundaranar University, February 2016 (Guide).
18. **Dr A Neel Armstrong**, Theoretical study on flow past a parabolic started vertical plate in the presence of external magnetic field, Manonmaniam Sundaranar University, February 2016 (Guide)
19. **Dr B Saravanan**, Numerical study of thermal radiation and MHD effects on Oscillating Semi-infinite vertical plate with mass diffusion, Manonmaniam Sundaranar University, April 2016 (Guide)
20. **Dr V Visalakshi**, An exact solution of heat and mass transfer effects on unsteady flow past an exponentially accelerated infinite vertical plate, Bharathiar University September 2017 (Guide).
21. **Dr C Santhana Lakshmi**, Thermal radiation and Chemical reaction effects on an exponentially accelerated vertical plate in the presence of Magnetic field, SVCE(Anna University), November 2017 (Guide)
22. **Dr S Cinthamani, (FT)** On different Subclasses of Univalent and Bi-Univalent Analytic functions, Anna University-SVCE(Guide: **Dr A Gangadharan**, Retd.Professor and **Dr R Muthucumaraswamy(Joint Supervisor)**)
23. **Dr K Muthuracku alias Prema**, Exact solution of Hall effects on Hydromagnetic flow past an accelerated infinite vertical plate, SVCE(Anna University), 12th January 2018 (Guide).
24. **Dr P Sivakumar**, Theoretical study of parabolic heating of a vertical plate in the presence of chemical reaction of first order, Periyar University, Salem, April 2018(Guide).

25. **Dr V Lakshmi**, Thermal Radiation effects on parabolic heating of an infinite vertical plate, Anna University, July 2018. (Guide)
26. **Dr L Jeyanthi**, Hall effects on MHD flow past on an accelerated infinite vertical plate in the presence of rotating fluid with first order chemical reaction, Anna University, November 2018 (Guide).
27. **Dr A Suba**, An exploration on Hydromagnetic free convective radiative flow in a rotating system by Numerical approach, Anna University, December 2019 (Guide)
28. **Dr K Vijayalakshmi**, Numerical Analysis of Heat and Mass Transfer over an Oscillating vertical plate with heat and mass flux in the boundary, Anna University, April 2021 (Guide) 19/4/2021, 11-FN)

PhD Guidance

Thesis Submitted (2-OU)

Ms Amudha, Dravidian University (Guide)
Mr S Velmurugan, Manonmaniam Sundaranar University

Synopsis Submitted (1-OU)

Ms B Manjula, Periyar University, Salem, 2015

Registered for PhD (11-AU)

Mr R Rajaraman, Anna University, July 2017.
Mr Sudhakar , Anna University, 2016
Ms V Gayathri, Anna University, Jan 2019
Ms M Thangeswari, Anna University, July 2018
Ms Visalakshi Subramaniam, Anna University, July 2020
Mr G Palanikumar, Anna University, July 2016
Mr C Suresh, Anna University, July 2017
Mr R M Madhusudhan, Anna University, July 2021 (FT-JRF)
Ms D Karthika, Anna University, July 2022
Mr A Simon Prabu, Anna University, July 2016
Ms S Bhavani, Anna University, Jan 2017

Role in Conferences

Dr R Muthucumaraswamy chaired a paper presentation session in the “National Conference on Recent trends in Advanced Mathematics, Eswari Engineering College,

Dr R Muthucumaraswamy, Professor and Head/AM, chaired a paper presentation session on “International Conference on Pure and Applied Mathematics at Sri Chandrasekarendra Saraswathi Viswa Mahavidyalaya University, Kanchipuram, 20th February 2018.

Muthucumaraswamy, Professor and Head/AM, delivered an invited talk titled “Review of Heat and mass transfer and scope for further Research”, in National conference on Applications of Graph theory, Fluid Dynamics and Queuing theory”, Sri Ram College of Engineering, 24th March 2018.

R & D Projects : 3

1. Completed first DRDO (Defence Research Developmental organizations) funded project titled “Numerical simulation of Heat and Mass Transfer effects on moving vertical plate in the presence of Magnetic field”. This project completed with seven publications. The grant received Rs. 2.67 Lakhs and the duration of the project is 2006-2009.
2. Completed second DRDO funded project titled “ Numerical simulation of Magnetohydrodynamic effects on oscillating vertical plate with heat and mass transfer, The grant received Rs. 2.14 Lakhs and the duration of the project is 2010-2012.
3. Received **Rs. 17,79,900** research grant from Department of Atomic Energy (DAE) under National Board of Higher Mathematics(NBHM) for the project titled “Numerical simulation of Hall effects on Moving vertical plate with heat and mass transfer”. The duration of the project is 3 years (2021-2024)

MPhil Projects

- (i) Ms T Poongodi, Exact solution for flow past an impulsively Started vertical plate, Alagappa University, Karaikudi, 2003.
- (ii) Ms S Malarvizhi, Thermal radiation effects on moving infinite vertical plate, Alagappa University, Karaikudi, 2004.
- (iii) Ms J Mohanalakshmi, Heat and Mass transfer on moving vertical plate, Alagappa University, Karaikudi, 2004.

- (iv) Ms L Manjula, Heat Transfer Effects on Moving Vertical Plate in the Presence of Magnetic field , Alagappa University, Karaikudi, 2005. 42
- (v) Mr V Anandan, Theoretical study of chemical reaction effects on oscillating vertical plate, Alagappa University, Karaikudi, April 2010.

ME Projects

- (i) Rajesh Kumar B.- Hydro magnetic flow and heat Transfer effects on continuously moving surfaces. All the chapters of this project published in National / International Journals
- (ii) Senthil Vadivel V.U.-Heat transfer effects on moving vertical plate in the presence of Magnetic field, The second chapter is published in 'The Mathematics Education'

BE Projects

- (i) M Prasanna, Election Processing- A Mini Project, Department of Information Technology, University of Madras, October 2003.
- (ii) Ms Ramya Sankar, Web site and Registration software for FORESE@SVCE, Department of Information Technology, September 2003.
- (iii) R Chandrsekhar and K R Harisainath, Improving the predictive accuracy of an ANT colony optimization algorithm for classification in event LOGS, Department of Information Technology, Anna University, April 2007.
- (iv) K Karthik, R Palaniappa, Prashanna Siveraman, A distributed database architecture for global roaming in next generation mobile networks, Department of Information Technology, Anna University, April 2008.

PhD Thesis Examiner : 9

Reviewed and conducted viva-voce examination of PhD thesis titled "**Optimal sequential Decision Making under Uncertainty using Finite automata theory**", by **Mr A James Albert, Bharathiar University, Coimbatore, February 2010.**

Evaluated and conducted viva-voce examination of PhD thesis titled "**Efficient Authentication protocols based on elliptic curve cryptography in mobile networks-An extensive comparative study**, by **Ms P.G.Rajeswari, Bharathiar University, July 2012.**

Reviewed PhD Thesis titled "**Prandtl number dependence of the flow past plate with or without stratification**", by **Mr Nityajyoti Kalita, Gauhati University, June 2013.**

Reviewed PhD synopsis titled “**Study of Darcian and Non-Darcian porous medium with heat and mass transport: A Convective Mathematical flow modeling**”, Rajiv Gandhi University, August 2014. 43

Reviewed PhD thesis titled “**Analytical/numerical study of some Radiative heat transfer flows through porous medium in the presence of magnetohydrodynamic effects**”, Gauhati University, January 2016.

Reviewed PhD thesis titled “**Nonlinear convection in Binary Ferromagnetic fluids**”, **Osmania University**, Hyderabad, May 2017.

Reviewed PhD thesis titled “**Study of Mathematical Modeling for Magnetohydrodynamic free and forced convective flow with heat transport**”, Rajiv Gandhi University, Arunachal Pradesh, November 2017.

Reviewed PhD synopsis titled “**Mathematical Modelling of Blood flow through an Artery/No-Artery in the presence of MHD convective flow**”, Rajiv Gandhi University, January 2021.

Evaluated and conducted Viva-voce Examination for the PhD thesis titled “**A Mathematical Analysis on the effect of Lubrication in Parallel plates**”, by **Mr S Sampathraj**, Loyola College, University of Madras, 15th April 2021.

Roles in Syllabus Sub-Committee and BOS member

Member of Board of Studies (Science and Humanities) in RMK Engineering College from the year 2020-2023 (Expert member in Mathematics)

Syllabus Sub-committee member of Board of Studies (Science and Humanities) in Anna University for the year 2021-2022 (Regulations 2021)

Member of Board of Studies (Science and Humanities) in RMK College of Engineering and Technology from the year 2021-2024

Membership in Professional bodies

- (i) Indian Society for Technical Education
- (ii) Indian Society for Heat and Mass Transfer
- (iii) Federation of Science clubs of Tamil Nadu
- (iv) International Association of Engineers (IAENG)

Others

Management Representative 2012, 2013.
Qualified as a Internal Auditor

Mathematics Board chairman (2009,2011,2012) 44
Mathematics Board Chairman for central valuation zone-II (2010 even semester)
Mathematics, Physics, Chemistry and English Pass Board Chairman in Zone –II (2010 even)

Video Lectures prepared during COVID period

Dr R Muthucumaraswamy, Professor and Head, prepared a 11 Video Lectures and uploaded in Youtube channel for the benefit of SVCE,Anna University students and general public during COVID period:

Subject : Computational Methods

1. Crank Kicolson Method for one dimensional heat equation
2. One dimensional Heat equation – Bender Schmidt model
3. Poisson Equation derivation and problems

Subject : Engineering Mathematics

1. Basic concepts relevant to Fourier Series - 188 views
2. Problems and solutions in Fourier Series – 72 views
3. Even and Odd function in Fourier Series-I -61 views
4. Even and Odd function in Fourier Series-II -29 views
5. Challenging Problems in Fourier Series- 40 views
6. Parsevals Identity for Fourier series- 55 views

General topics

1. Problem of Towers of Hanoi-59 views
2. Partial fraction and short cut methods-

Video Lectures prepared for Centre for Faculty Development, Anna University

Dr R Muthucumaraswamy, Professor and Head, prepared 23 Video Lectures for affiliated Students of Anna University and videos are captured in CFD, Anna University

Subject 1: Algebra and Matrices (First semester – common to all)

Functions of Several Variables (UNIT-III– 7 Videos)

Integral Calculus (Unit-IV – 8 Videos)

Subject 2 : Statistics and Numerical Methods (Second Semester- Common to all)

Solution of Equations and Eigen Value Problems (Unit-III– 8 Videos)

MPhil Projects Guidance:

- (vi) Ms T Poongodi, Exact solution for flow past an impulsively Started vertical plate, Alagappa University, Karaikudi, 2003.
- (vii) Ms S Malarvizhi, Thermal radiation effects on moving infinite vertical plate, Alagappa University, Karaikudi, 2004.
- (viii) Ms J Mohanalakshmi, Heat and Mass transfer on moving vertical plate, Alagappa University, Karaikudi, 2004.
- (ix) Ms L Manjula, Heat Transfer Effects on Moving Vertical Plate in the Presence of Magnetic field , Alagappa University, Karaikudi, 2005.
- (x) Mr V Anandan, Theoretical study of chemical reaction effects on oscillating vertical plate, Alagappa University, Karaikudi, April 2010.

ME Projects Guidance:

- (iii) Rajesh Kumar B.- Hydro magnetic flow and heat Transfer effects on continuously moving surfaces. All the chapters of this project published in National / International Journals
- (iv) Senthil Vadivel V.U.-Heat transfer effects on moving vertical plate in the presence of Magnetic field, The second chapter is published in 'The Mathematics Education'