

**Department of Freshman Engineering**  
**R&D Activities by faculty in academic year 2020-2021**

**Patents:**

1. Dr.P.Pavani, Dr.N.Usha Rani, Dr.P.T.S.R.K.Prasada Rao, Mr.Sivanand M, Dr.C.Naga Sessa Sai Pavan Kumar, Mr.C.Gangu Naidu filed a patent “Design and implementation of smart air quality detection system” at IP Australia, Australian Government, IP Right Number: 2021100661
2. Dr.K.K.S.V.A.Sateesh (SR University), T.Krishna Sree (PVPSIT), K.Krishna Sai Ujwal (University of North Texas), Dr.V.Sitamahalakshmi (PVPSIT), “Development of Efficient Data Security Technique for Vehicular Cloud Server”, IP, India, Domain: Computer Science, Published on: 19.03.2021. (Not in count of PVPSIT, first applicant belongs to other institute)
3. M.Prameela (first author), “A smart application for delivering medicine at home using e-prescription”, IPR, India, Application number: 202141021276A, Dt: 11.06.2021.

**Research Project Applied:**

1. Dr.A.Purnachandra Rao, “English Proficiency among the Telugu Medium Students of Secondary Schools in Andhra Pradesh: A Statistical Study”, SERB-Matrices, Ref No.: 332021000847, Submitted Date: 20.03.2021, Amount: 6 Lakhs

**Book published:**

1. Dr.V.Sitamahalakshmi, M.Prameela, “Formula guru for mathematics”, Immortal Publications, ISBN: 978-93-5437-382-4.

**SCI:**

1. **G. Sreedevi**, K. Srinivas , M. Subba rao, Sandhya Cole published a paper entitled “Investigation on structural and optical properties of CuO doped CdS-Zn<sub>3</sub>(PO<sub>4</sub>)<sub>2</sub> nanocomposite for optoelectronic devices” in Journal of Molecular Structure (ELSEVIER), volume:1222 , issue:15 ISSN:0022-2860 page:128903(1-10), August-2020.
2. **Anupama Ammulu Manne**, Bharathi Arigela, Ajay Kumar Giduturi, Ravi K. Komaravolu, Ushakiranmayi Mangamuri, Sudhakar Poda, “Pterocarpus marsupium Roxburgh heartwood extract/chitosan nanoparticles loaded hydrogel as an innovative wound healing agent in the diabetic rat model”, Materials Today Communications, ISSN: 2352-4928, Volume26, ArticleNo.:101916, 2021, pp.:1-12.

3. Nuthalapati Poojith, **Nannapaneni Usha Rani**, Krishna Murthy Potla, J. John Rose, P.A. Suchetan, Renjith Raveendran Pillai, Suneetha Vankayalapati, “An analysis of structural, spectroscopic, quantum chemical and in silico studies of ethyl 3-[(pyridin-2-yl)amino] propanoate: A potential thrombin inhibitor”, Journal of Molecular Structure, ISSN: 0022-2860, Volume 1226, Part B, January 2021, 129378, pp: 1-13

#### SCOPUS:

4. Dr.P.Padmaja, P.Aparna, R.S.R.Gorla, “An initial-value technique for self-adjoint singularly perturbed two –point boundary value problems” International Journal of Applied Mechanics and Engineering Vol. 25, No.1, Feb 2020, ISSN- 23539003-17344492, Page No: 106-126.
5. P Aparna, P Padmaja, N.Pothanna , JVR Murthy “Couple stress fluid flow due to slow Steady oscillations of a permeable sphere”, Nonlinear Engineering, Volume-9, Issue-1 ISSN: 2192- 8010 Page No: 352-360, Aug. 2020.
6. U.M. Swamy, R Chudamani & K. Krishna Rao “characterization of Prime Ideals, Filters in ABA’s” Asian- European Journal of Mathematics, Volume. 13 Issue:6, ISSN: 1793-7183, Page No:1-16,Sep. 2020.
7. P.Pavani, S.L.Tulasi, N.Usha Rani, T.Raja Rajeswari, “A validated stability indicating RP-HPLC method for determination of azelnidipine and its impurities in pharmaceutical formulation”, Indian Drugs, ISSN: 0019-462X, Volume: 57, Issue: 08, August 2020, pp: 70-76
8. P.V.Srinivasa Rao, M.Siva Mala, K.Kiran Kumar, “Subtractive Partial  $\Gamma$ -Subsemimodules of Partial  $\Gamma$ -Semimodules”, Advances in Mathematics: Scientific Journal, ISSN: 1857-8365, Volume: 9, Issue: 9, September 2020
9. **Padmaja, P.**, Aparna, P., Gorla, Rama Subba Reddy and Pothanna, N.. "Numerical Solution of Singularly Perturbed Two Parameter Problems using Exponential Splines" International Journal of Applied Mechanics and Engineering, vol.26, no.2, June 2021, pp.160-172.
10. M. Anupama Ammulu., Vinay Viswanath, K., Giduturi, A.K. et al., “Phytoassisted synthesis of magnesium oxide nanoparticles from Pterocarpus marsupium rox.b

heartwood extract and its biomedical applications” Journal of Genetic Engineering and Biotechnology, Volume: 19, Article: 21, January 2021, pp: 1-18. .

#### **ESCI:**

- 11.** Dr.A.Purnachandra Rao, “Poems: Triumph, Life Sans Art, Beloved’s Realm”, Literary Voice, ISSN: 2277-4521, Number: 13, Volume: 2, September 2021, pp: 343
- 12.** G. NageswaraRao, Dr. G. Mohanacharyulu, Alapati PurnachandraRao, and KVNK Murthy, "Self-identity and Liberation by Replacing the Traditional Image of Indian Woman: a Comparative Study on Nayantarasahgal’s This Time of Morning” and ShobhaDe’s “Socialite Evening”, Turkish Journal of Physiotherapy and Rehabilitation; Volume.32. Issue.2. March, 2021, ISSN 2651- 4451, pp:2931-2936
- 13.** Chandrasekhar Chanda, Muktha Maganti, Manaswini Chunduru, Phani Greeshma Veeramachaneni, Praneetha Srikonda, Shaik Mohammad Anjum, Khyathi Dondapati, **Anupama Ammulu Manne**, “Monitoring Cellular Immune Responses in Cancer Therapy”, International Journal of Life science and Pharma Research, ISSN: 2250-0480 Volume:10, No.: 5, December 2020, pp.: L121 – L126.

#### **UGC:**

- 14.** V. AmarendraBabu, V. Siva Naga Malleswari, “Intuitionistic Fuzzy Soft Cubic Relations”, Advances and Applications in Mathematical Sciences, ISSN: 0974- 6803, Volume 20, Issue 6, April 2021, pp: 1021-1030