RESUME

CH.DEVA RAJ
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Academic Profile

- **PhD** (Pursuing) as part time basis form Department of Mechanical Engineering, Andhra University, Visakhapatnam, Andhra Pradesh, India.
- **M.Tech (CAD/CAM),** [June 2008] with Distinction from R.V.R & J.C College of Engineering, Guntur.
- **B.Tech (Mechanical),** [June 2002] with First class from JNTU College of engineering, Kakinada.

Professional Experience

2008 (Nov) - Till Date - Assistant Professor in the Department of Mechanical Engineering, R.V.R & J.C College of Engineering

2006–2008 - Assistant Professor in the Department of Mechanical Engineering, Loyola Institute of Technology and Management, Dhullipalla

Funding Projects: 02

1. Received 8 Lakhs funding from UNION GRANTS COMMISSION (UGC) an Indian Government funding agency for the Project entitled "Tool condition monitoring using Acoustic emission in hard tuning" in year 2013

2. Received 8 Lakhs funding from Virinchi Engineering Pvt.Ltd. Hyderabad INDIA for the Project entitled "Influence of Heat treatment on the machinability of Alumina reinforced AZ91 Mg alloy metal matrix composites" in the year 2022

Patent Details:

https://search.ipindia.gov.in/DesignApplicationStatus

SN	Name of the Faculty	Title of the Patent	Application Number	CBR No	Status
1.	Dr.B.Ramgopal Reddy, Smt.K.LakshmiChaitanya, **Sri Ch.Deva Raj,** Dr.K.Suryanarayana, Sri K.Hari Prasad	Door-Mounted Refrigerator	355036-001	210956	Granted (Application Accepted, Certificate of Design Generated)
2.	Dr. D. V. V. K. Prasad Dr. K. Praveen Kumar Dr. V. Ramakoteswara Rao **Sri Ch. Deva Raj**	Advanced regenerative vehicle suspension system with	202441002309		Published 23/02/2024

		artificial Intelligence for energy recovery			

Projects Guided:

B. Tech Projects: 22
M. Tech Projects: 2

Different projects have guided involving Design and Stress analysis using computersoftware and optimization techniques.

M. Tech Dissertation Work:

Title: **Optimal Design of Robot End Gripper using Ant Colony Metaphor**

This Project is concerned with the determination of optimum forces extracted by robot grippers on the surface of a grasped rigid object – a matter which is crucial to guarantee the stability of the grip without causing defect or damage to the grasped object. A multicriteria optimization of robot gripper design problem is solved with two different configurations involving two conflicting objectives and a number of constraints. The objectives involve minimization of the difference between maximum and minimum gripping forces and simultaneous minimization of the transmission ratio between the applied gripper actuator force and the force experienced at the gripping ends.

Areas of Special Interest:

Optimization
Robotics
Residual stress
Magnesium Composites
Bio-Implants

Papers Published in National & International Journals:

1. Mastan Rao, P., Deva Raj, C., Dhoria, S.H., Vijaya, M. and Chowdary, J.R.R., 2023. Multi-Objective Optimization of Turning for Nickel-Based Alloys Using Taguchi-GRA and TOPSIS Approaches. Journal of The Institution of Engineers (India): Series D, pp.1-12.
2. RAO, P.M., VIJAYA, M., SRINIVAS, K., CHILAKALA, D.R., CHAITANYA, K.L., CHOWDARY, J.R. and VADAN, B.J., 2023. Optimization of wear parameters & coefficient of friction of SiC and graphite reinforced hybrid aluminium composites. Sigma: Journal of Engineering & Natural Sciences/Mühendislik ve Fen Bilimleri Dergisi, 41(5).
3. Papabathina, M.R., Chinka, S.S.B., Putta, N.R., Vijaya, M., Dhoria, S.H., Chilakala, D.R., Jarubula, R.R.C. and Kancharla, P.K., 2023, June. Effect of Graphite on Mechanical and Tribological Properties of Al6061/SiC Hybrid Composites. In Annales de Chimie Science des Matériaux (Vol. 47, No. 3).(WOB and Scopus)

4. Murkonda Vijaya, Kolla Srinivas, Chilakala Deva Raj, "optimization of wear parameters & coefficient of friction of SiC and graphite reinforced hybrid aluminium composites", Journal of Engineering and Natural Sciences, -(in press) (web of science)
5. V.Durga Rao, K.Srinivas, Ch.Devaraj, 'Thermal-structured coupled analysis of brake disc using CATIA and ANSYS', Compliance Engineering journal, Vol.11(9), 465-474, 2020.
6. M. Vijaya, K. Srinivas, Ch. Deva Raj, Prediction of Force Convergence and Stresses on a Gear using Coefficient of Friction from Wear test developed in Finite Element Method, International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-9 Issue-1, October 2019
7. Kondala Rao Dasari, Kolla Srinivas, Ch. Devaraj, "Ceramic Tool Condition Monitoring in Machining of Inconel 718", International Journal of Scientific Research in Network Security and Communication, ISSN: 2321- 3256, 7,1,
8. Ram, Y.S., Kammaluddin, S., Raj, C.D. and MastanRao, P., 2016. Sliding wear behavior of high velocity oxy-fuel sprayed WC-CO coatings. International Journal of Advanced Science and Technology, 93, pp.45-54.
9. M. NishidharBabu, Ch. Deva Raj, B. Muddu Krishna, Y. Kiran,P.Mastanrao 'Design and Optimization of Pressure Vessel using Real Coded Genetic Algorithm' International Journal of Scientific & Engineering Research Volume 8, Issue 10, October-2017 1409 ISSN 2229-5518,PP 1409-15.
10. Hassan, S., Kumar, K., Raj, C.D. and Sridhar, K., 2014. Design and optimisation of pressure vessel using metaheuristic approach. Applied Mechanics and Materials, 465, pp.401-406.
11. Neha Nag K., **Ch. Deva Raj,** Kolla Srinivas and Mastan Rao P., "Optimization of Gripper by Using Ant Colony Metaphor", *Research Journal of Engineering Sciences,* **2(8),** 1- 6**(2013)**.
12. Chittaranjan Das V**, Deva Raj Ch., "** Machinability Index Evolution using AHP and PROMTHEE Method**"** International Journal of Advanced Materials Manufacturing and Characterization(IJAMMC) Vol-3, Issue 1 pp 431-434 (2013).
13. N.Surekha, Dr.Srinivas Kolla, **Deva Raj.Ch**., K.Sreekanth "Optimization of Principal Dimensions of Radial Flow Gas Turbine Rotor Using Genetic Algorithem" International Journal of Scientific and Engineering Research **(IJSER) -** (ISSN 2229-5518).vol-3,12-(2012)
14. K.Srinivas **, Ch. Devaraj ,** P. Masthan Rao , K.Sridhar , *"Optimal Design of Pressure vessels using ANT colony Metaphor"*, ANU Journal of Engineering & Technology, Vol. 2 Issue 1 June2010 pp 60-68. ISSN No: 0976-3414.
15. Srinivas C**.,** Ramji K., Satyanarayana B., Naveen Ravela, **Ch.Devaraj** "*Designing the layout of single and multi–rows flexible manufacturing system by ant-colony optimization-meta- heuristic"* International Journal Of Advanced Manufacturing System **(** IJAMS) VOL 2 - 2010, pp 107-115 ISSN : 2229-

Papers Published in National & International Conferences:

1. V. Ramakoteswara Rao1, N. Ramanaiah, M.M.M. Sarcar and Ch. Deva Raj, "Process Parameters for Wear Behavior on AA7075-TiC Metal Matrix Composites", Proceedings of 6th International & 27th All India Manufacturing Technology, Design and Research (AIMTDR-2016)

2. Sulaiman Hassan, Kavi Kumar, **Ch Deva Raj**, Kota Sridhar, "Design and Optimisation of Pressure Vessel Using Metaheuristic Approach", Proceedings of International Conference on mechanical Engineering (ICME-2013) conducted on 16th and 17th December, at putrajaya malaysia.
3. **Ch Deva Raj**, Sulaiman Haji Hassan, Kavi Kumar, Kota Sridhar, "A Hybrid Metaheuristic Algorithm for Pressure Vessel Optimization", Engineering & Technology Procedia, Vol. 1 (2013) p 7-13.
4. N.Surekha, **Deva Raj.Ch ,** Dr.Srinivas Kolla, Kota Sridhar , "Optimization of Principal Dimensions of Radial Flow Gas Turbine Rotor Using Ant Colony Algorithm" , Engineering & Technology Procedia, Vol. 1 (2013) p.1-6
5. Mr.K.Pavan Kumar Reddy, Dr.K.Srinivas, **Mr.Ch.Devaraj**, "Multi-Objective optimization of the Surface Roughness and MRR in Turning operation using Grey-based Taguchi Method" Proceedings of the NCAME,April-2013,Organized by Vignan University, Guntur, Andhra Pradesh, INDIA.

6. Reddy Sreenivasulu, Dr. Ch.Srinivasa Rao, **Ch.Devaraj** , "*Optimization of operating parameters to minimize burr size in drilling using taguchi method & grey relational analysis for A1 6061"* , International Conference on Challenges and Opportunities in Mechanical Engineering and Management Studies (ICCOMIM) at M.S.Ramaiah Institute of Technology, Bengaluru during 11th – 13th July 2012. Vol 3 pp: 829-833 ISBN no : 978-93-82338-05-5
7. Kolla Srinivas, **Ch. Deva Raj** and Sadhu.Venkateswarlu , "*Ant Colony Algorithm-based multi-objective optimization of Cutting parameters in turning processes "*Proceedings of National Conference on Recent Advances in Mechanical Engineering(NCRAME-2011) at

   R.V.R & J.C College of Engineering, Guntur-19 July 7-8,2011 pp. 212-217.
8. C.Srinivas , K.Ramji ,B.Satyanarayana, R.naveen , **Ch.Devaraj** , "Designing the layout of single and multi-rows flexible manufacturing system by Ant Colony Optimization Meta Heuristic ", Proceedings of 4th International Conference on Advances in Mechanical Engineering ICAME, Sardar Vallabhai National institute of Technology(SVNIT) , Surat during September 23-25,2010. pp: 259-264.

Faculty Development (FD):

1. One week National Level Intercollegiate Online Faculty Development Program on Outcome Based Education & Bloom's Taxonomy organised by the Internal Quality Assurance Cell of Ramakrishna Mission Vivekananda Centenary College (Autonomous), Kolkata in association with ipsr solutions limited 08 November 2021 to 15 November 2021
2. Attended in AICTE sponsored two week Faculty Development Programme on "**Modeling and Optimization of Manufacturing System using Intelligent Techniques"** during the period **6th May to 18th May 2013** at Banary aman institute of Technology, Satyamangalam, Erode, Tamilnadu.
3. Participated in one day workshop on "**Advanced trends in IC Engines and combustion" on 28th February 2013 organized** by the Department of Mechanical engineering, JNTUH College of Engineering, Hyderabad.
4. Participated in the "**Induction Training for young Faculty**" Organized by ISTE Chapter, RVR&JCCE during September, 2011.
5. Attended in a National Level Workshop on "**Synthesis and Characterization of Nano- Materials**", During January, conducted by Department of Mechanical engineering, Narasaraopet Engineering College during 2011.
6. Participated in the "**Induction Training for young Faculty**" Organized by ISTE Chapter, RVR&JCCE during September, 2009.
7. Participated in AICTE Sponsored National Seminar on "**MICRO MACHINING**" During December, Conducted by RVR&JCCE during 2008.
8. Attended a workshop on "**Modern trends in Manufacturing**" Organized by Departmentof Mechanical Engineering, Narasarao pet, during October 2008.
9. Invited participant in the Workshop on "**Engineering design principles and new product development**" during July 2008 at IIT Chennai.

Declaration:

I hereby declare that the above mentioned statements are true and correct.

Place:chowdavaram

Date:23-08-23

(Signature of the Candidate)