

# KDK College of Engineering Nagpur

## Research Projects & Grants

Name of the Project	Name of the Principal Investigator	Department	Funds	Year of award	Duration of project
Synthesis and Characterization of phosphors for X-ray imaging.	Dr. Mrs. S.P. Wankhede, H.O.D.,Physics	Physics,(Basic science & Humanities)	Rs.10,90,124/- 3,45,462/- (2012-13)	2011-13	01/03/2011 to 28/02/2013
Development of Phosphors for high dose dosimetry	Dr. Mrs. S.P. Wankhede, H.O.D.,Physics	Physics,(Basic science & Humanities)	Rs.32,61,566/- 20,74,550/- (2013-14) 4,19,800/- (2014-15)	2013-16	01/08/2013 to 31/07/2016
Development of experimental set up using hydraulic system to investigate various variables of improved Bamboo processing machine	A.V. Vanalkar P.G. Mehar	Mechanical	0.10 Lacs	2011-2012	1 year
Finite Element Analysis of Draw die for body side panel of Piaggio Vehicle	C.C. Handa	Mechanical	0.11 Lacs	2012-2013	1 year
Development of Chilly handling system	A.V. Vanalkar	Mechanical	0.27 Lacs	2012-2013	1 year
Development of a Packaging machine	A.V. Vanalkar	Mechanical	0.19 Lacs	2012-2013	1 year
Development of Monorail for material handling system	C.C. Handa	Mechanical	0.20 Lacs	2012-2013	1 year
Finite element analysis of Steam Turbine Components for RLA studies of 110MW steam turbine at PTPS, UPRVUNL, Paricha, Jhansi	A.V. Vanalkar C.C. Handa	Mechanical	0.35 Lacs	2012-2013	7 months
Finite Element Analysis of Steam Turbine Components for RLA studies of 210 MW steam turbine at NTPP, NTPC, Dadri (UP)	A.V. Vanalkar C.C. Handa	Mechanical	0.35 Lacs	2012-2013	7 months
Design and finite element analysis of Circle cutting Machine	A.V. Vanalkar C.C. Handa	Mechanical	0.30 Lacs	2012-2013	6 months
Finite element analysis of Steam turbine components for RLA studies of 210 MW steam turbine at	A.V. Vanalkar C.C. Handa	Mechanical	0.77 Lacs	2013-2014	1 year

NTPP, NTPC, Dadri (UP)					
Development of Phosphors for High Dose Dosimetry	Mrs. S.P. Wankhede	Physics	30.434 Lacs	2013-2014	3 years
Grant saction under E.D.C. by A.I.C.T.E., New Delhi	C.C. Handa	Mechanical	4 Lacs	2013-2014	1 year
Financial Assistance as grant in aid sanction by A.I.C.T.E, New Delhi	Valson Varghese	Civil Engineering	2 Lacs	2013-2014	1 year
Designing of Low Power SRAM with Multiple optimization techniques	G.H. Agarwal	Electrical Engineering	7.5 Lacs	2013-2014	1 year
Modernization of present Automation and Robotics laboratory as Flexible Manufacturing System laboratory	C.C. Handa	Mechanical	17.04 Lacs	2013-2014	1 year
Measurement of dimensions and 2D drawing of Tube Valve	A.V. Vanalkar C.C.Handa	Mechanical	0.05 Lacs	2014-2015	3 months
Design & Optimization of Bolted joint subjected to shear & bending loads	C.C. Handa	Mechanical	0.10 Lacs	2014-2015	1 year
Design and development of Non-continuous type conveying system for Ginning Industry	A.V. Vanalkar	Mechanical	0.10 Lacs	2014-2015	1 year
Failure analysis of Car front suspension lower arm	A.V. Vanalkar	Mechanical	0.10 Lacs	2014-2015	9 months
Design and analysis of High Mast Solar light pole	A.V. Vanalkar	Mechanical	0.10 Lacs	2014-2015	1 year
Design and Fabrication of Drum Handling Equipment	S.K. Choudhary	Mechanical	0.22 Lacs	2014-2015	1 year
Multi-body Dynamics of Light Motor Vehicle	S.K. Choudhary	Mechanical	0.10 Lacs	2014-2015	1 year
Stress Analysis by Finite element method of 210 MW, (KWV make) Steam Turbine duing RLA studies of WTPS, GSECL, Wanakbori	A.V. Vanalkar C.C. Handa	Mechanical	0.40 Lacs	2014-2015	8 months
Analysis and Optimization of cutting tool of Bamboo processing machine	P.G. Mehar	Mechanical	0.10 Lacs	2014-2015	1 year
Design and development of Spinal Cord surgery mechanism for surgical bed	C.C. Handa	Mechanical	0.10 Lacs	2015-2016	1 year
Design and Development of Agriwaste Briquette Making Machine	Dr.C.C.Handa	Mechanical	18,000/-	2016-2017	1 year
Condition Monitoring of a single point cutting tool for lathe machine using FFT analyser	Dr.A.V.Vanalkar	Mechanical	25,000/-	2016-2017	1 year

Design and Analysis of Leaf Spring Stiffness Testing Machine	Dr.C.C.Handa	Mechanical	0.15	2017-2018	1 Year
Design and Analysis of Crimping Machine	Dr.A.V.Vanalkar	Mechanical	0.1	2017-2018	1 Year
Design and Analysis of Die and Punch Used for Deep Drawing Operation for Daulat Industries, Gaddi Godam, Nagpur.	Dr.S.K.Choudhary	Mechanical	0.2	2017-2018	1 Year
Design and Analysis of Mechanism for Mounting of Fibre Disk in Idle Roller in Hot Rolling Machine	Dr.C.C.Handa	Mechanical	0.15	2017-2018	1 Year
Design and Analysis of Rotary Type Vegetable Cleaner	Dr.S.R.Ikhar	Mechanical	0.1	2017-2018	1 Year
Design and Analysis of Mobile Light Tower(MAST)	Dr.P.G.Mehar	Mechanical	0.1	2017-2018	1 Year
Standard operating procedure for major process	Dr. P.R. Gajbhiye	Mechanical	15,000/-	2018-2019	1 year
Methodologies to be developed to synchronize pulleys	Dr. C.C. Handa	Mechanical	15,000/-	2018-2019	1 year
Mechanism to develop to separate corn in different sizes without wastage	Dr. C.C. Handa	Mechanical	25,000/-	2018-2019	1 year
Agri-waste Briquette Making Machine	Dr. C.C. Handa	Mechanical	10,000/-	2018-2019	1 year
Design And Fabrication of Marigold Flower Seed and Petal Separating Machine	Dr. R.H. Parikh	Mechanical	40,000/-	2018-2019	1 Year
Design And Fabrication of Round Ring Cloth Peg Assembly Machine	Dr. S.K. Choudhary	Mechanical	12,000/-	2018-2019	1 Year
Design And Fabrication of U-cloth Pin Assembly Machine	Dr. A. V. Vanalkar	Mechanical	20,000/-	2018-2019	1 Year
Marigold flower petal separating machine	Dr. A. V. Vanalkar	Mechanical	10,000/-	2018-2019	1 Year
An Automatic Solution To Cut the sheet in circular form of various sizes	Prof. V. D. Dhopte	Mechanical	15,000/-	2018-2019	1 Year

Design and development of knot making mechanism	Dr. C.C. Handa	Mechanical	10,000/-	2018-2019	1 Year
Innovative solution to be developed for furniture painting	Dr. S. R. Ikhar	Mechanical	30,000/-	2018-2019	1 year
Fabrication of table top board cleaning machine for furniture industry	Dr. C.C. Handa	Mechanical	20,000/-	2018-2019	1 year
Develop a mechanism for extraction of charge carbon and bio-oil from coconut shell	Dr. C.C. Handa	Mechanical	15,000/-	2018-2019	1 year
Image processing for fire detection using camera	Prof. A. P. Ninawe	Mechanical	20,000/-	2018-2019	1 year
Technology to develop efficient process and cost effective recycling pads	Prof. V. D. Dhopte	Mechanical	25,000/-	2018-2019	1 Year
Mechanism to curb pollution due to ineffective cleaning methods before recycling of plastic waste	Prof. M. S. Shelke	Mechanical	15,000/-	2018-2019	1 Year
Design and fabrication of round ring cloth peg assembly machine	Dr.S.K.Choudhary	Mechanical	10,000/-	2018-2019	1 Year
Design and fabrication of impact crusher machine	Dr.A.V.Vanalkar	Mechanical	10,000/-	2018-2019	1 Year
Design and development of coconut de-shelling machine	Dr.V.B.Vaidya	Mechanical	10,000/-	2018-2019	1 Year
Design and Development of U pin cloth peg assembly machine	Dr.A.V.Vanalkar	Mechanical	10,000/-	2018-2019	1 Year
Design and Development of Mary Gold Flower Seed removal machine	Dr.R.H.Parikh	Mechanical	10,000/-	2018-2019	1 Year
Design and Development of Motorized pellets or briquettes making machine	Dr.C.C.Handa	Mechanical	10,000/-	2018-2019	1 Year
GIZ Project	All Faculties	Mechanical	1.85 lakh	2019-2020	1.5 years

Design Optimisation and Development of Ram Pump(HYDRAM) File No.8-81/FDC/RPS (Policy-1)/ 2019-20 dated 14/08/2020	Dr.C.C.Handa	Mechanical	666666	2020-2021	3 Years
"A Novel Approach Towards Ginival Curettage Using Newly Advanced Flexible Bur"	Dr.C.C. Handa	Mechanical	199000	2020-2021	1.6 Year
Structured Approach For Design and Development of Shrink Wrapping Machine	Dr. R. H. Parikh	Mechanical	65,000/-	2020-2021	1 Year
Optimization of High Feed Milling in Titanium Material -Ti6AL4V	Dr. S.K. Choudhary	Mechanical	15,000/-	2020-2021	1 Year
Development of Modified system for Round Ring Cloth Peg Assembly Machine	Dr. A.V. Vanalkar	Mechanical	35,000/-	2020-2021	1 Year
Design, Development and Fabrication of Modified Briquette Making Machine	Dr. A.V. Vanalkar	Mechanical	15,000/-	2020-2021	1 Year
Design and Fabrication of Soot Cleaning System for Fire Tube Boiler	Prof. V.N. Mujbaile	Mechanical	10,000/-	2020-2021	1 year
Design and Development of Multiutility Sheller machine using powered by vehicle	Dr. V.B. Vaidya	Mechanical	20,000/-	2020-2021	1 year
Development and Improvement of Pulverizer machine	Dr. C.C. Handa	Mechanical	25,000/-	2020-2021	1 year
Design, Development & Modification of Bamboo Stick Cutting Machine	Dr. S.R. Ikhar	Mechanical	20,000/-	2020-2021	1 year
Parametric Optimization and Experimental Study of Single and Multi Spot Welded Joint for Tensile Shear Strength by using software	Dr. P.G. Mehar	Mechanical	15,000/-	2020-2021	1 Year
Design, Development, Modification and Fabrication of Upper and Lower Clamp Plate of	Dr.A.V.Vanalkar	Mechanical	40,000/-	2020-2021	1 Year

Offset Printing Machine					
Development, Analysis and Fabrication of Bamboo Cutting Machine using Pantograph for any profile using Die	Dr.A.V.Vanalkar	Mechanical	25,000/-	2020-2021	1 Year
Development of Process for Extraction of Activated Carbon & Bio oil from Coconut Shells	Dr.C.C.Handa	Mechanical	1,02,000/-	2021-2022	Ongoing
Design, Development and Fabrication of Marigold Flower Petal Separating Machine – A Research lab prototype	Dr. A. V. Vanalkar Dr. D. M. Holey	Mechanical	17,000/-	2021-2022	1 month
Design, Development and Fabrication of Oxygen Concentrator	Dr. A. V. Vanalkar Dr. D. M. Holey	Mechanical	70,000/-	2021-2022	4 months
Design, Development and Fabrication of Model and Prototype of Pick and Place Robot	Dr. A. V. Vanalkar Dr. D. M. Holey	Mechanical	1,14,000/-	2021-2022	3 months
Design of Roof top solar power for classroom complex.	Dr. Mrs. S.S. Ambekar	Electrical Engineering	0.08 Lacs	2018-19	1 year
Design of control and protection for agricultural spraying using Knapack.	Mrs. S. R. Gawande	Electrical Engineering	0.06 Lacs	2018-19	1 year
Design of automatic coil winding machine.	Mrs. V. B. Hardas	Electrical Engineering	0.075 Lacs	2018-19	1 year
Case study of power factor improvement on Vinayka steel, MIDC, Hingna, Nagpur.	Dr. G.H. Agrawal	Electrical Engineering	0.05 Lacs	2018-19	1 year
Design of continuity process in cables in braiding machines.	Mr. A.M. Halmare	Electrical Engineering	0.09 Lacs	2018-19	1 year
Case study- Manufacturing process of power cable at Epsilon Cables, MIDC, Hingna, Nagpur.	Dr. G.H. Agrawal	Electrical Engineering	0.05 Lacs	2018-19	1 year
Comparative study of electrical installation of two aluminum industries.	Dr. Mrs. S. Shrikanth	Electrical Engineering	0.06 Lacs	2018-19	1 year

Mitigation of voltage fluctuation at Shri Ganesh Shirt House.	Dr. D. M.Holey	Electrical Engineering	0.11 Lacs	2018-19	1 year
Statistical Performance Monitoring and maintaining constant power Output of PV system	Dr. Mrs. S.S. Ambekar & Mr. Yogesh Khapekar	Electrical Engineering	0.1 Lacs	2019-20	1 year
Modification in Power Pack used in thermal power plant	Dr. D. M. Holey	Electrical Engineering	0.12 Lacs	2019-20	1 year
On grid rooftop solar power plant for girls hostel 19 KW	Mr. Sagar D. Bhaisare	Electrical Engineering	8.55 Lacs	2019-20	10 November 2019 to July 2020
On grid rooftop solar power plant for boys hostel 12 KW	Mr. Sagar D. Bhaisare	Electrical Engineering	4.50 Lacs	2019-20	10 November 2019 to April 2020
MODROB by AICTE	Dr.Mrs. Shubhangi S. Ambekar	Electrical Engineering	12.89 Lacs	2020-21	2 Years
Grants received for new courses from AICTE for FDP	Dr.Mrs. Shubhangi S. Ambekar	Electrical Engineering	4.87Lacs	2020-21	Phase-1 23/11/2020 to 4/12/2020  Phase-2 7/12/2020 to 18/12/2020
Automatic railway track crack detecting robotic vehicle.	Dr.Mrs. Shubhangi S. Ambekar	Electrical Engineering	0.1 Lacs	2020-21	1 year
VOLTAGE & FREQUENCY BASED CONTROL OF INDUCTION MOTOR USING ADVANCED VOICE RECOGNITION & COMMAND SYSTEM.	Dr. G. H. Agrawal	Electrical Engineering	0.09 Lacs	2020-21	1 year
AUTOMATIC PHYSIOTHERAPY MACHINE FOR LEG	Dr. G. H. Agrawal	Electrical Engineering	0.07 Lacs	2020-21	1 year
Design Engineering installation of 5KW off grid solar PV plant	Dr. Devendra M. Holey Mr. Sandeep K. Mude Dr. Chandrashekhar S. Hiwarkar	Electrical Engineering	2.52 Lacs	2021-22	1 Month
Design Development & Fabrication of Oxygen concentrator	Dr. Devendra M. Holey	Electrical Engineering	0.7 Lacs	2021-22	3 Months

Design Development & Fabrication of marigold flower petal separation machine – research lab prototype	Dr. Devendra M. Holey	Electrical Engineering	0.17 Lacs	2021-22	2 Months