



**K.K. Wagh Education Society's
K.K. Wagh Institute of Engineering
Education and Research, Nashik.**

March - May 2020

Vol. : 12
Issue : 3-5

■ **Convocation Ceremony**



Convocation ceremony on 7th March 2020

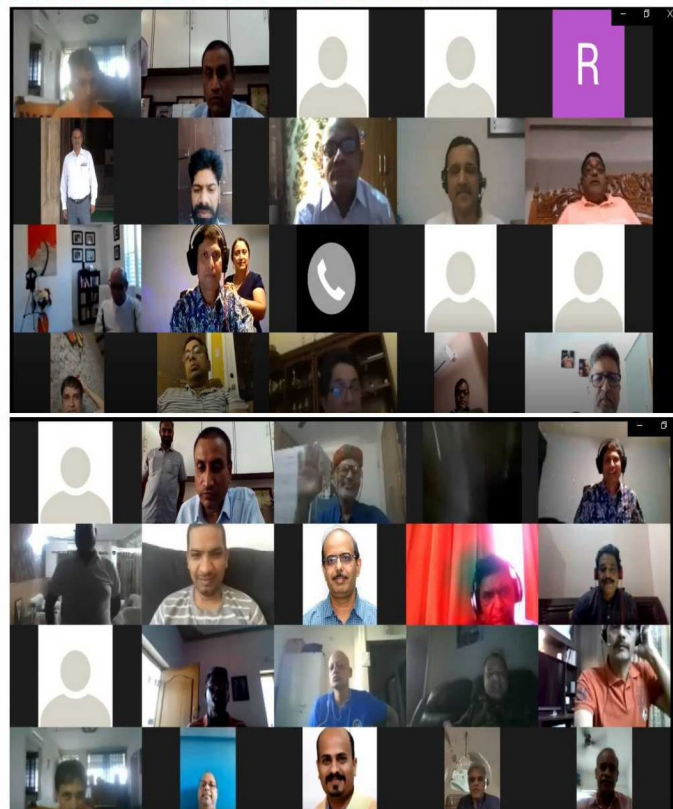


Felicitating of Chief Guest of Convocation ceremony Prof. Dr. A. B. Pandit

Convocation Ceremony for UG courses offered through various Colleges of K. K. Wagh Education Society was held on 7th March 2020 at Engineering College Campus. The Chief Guest for the function was Prof. Dr. A. B. Pandit (Vice Chancellor, ICT Mumbai). Hon. Shri. Balasaheb Wagh, President of K. K. Wagh Education Society, presided over the function. Passout students of Academic year 2018 -19 from K. K. Wagh Institute of Engineering Education and Research, K. K. Wagh Arts, Commerce and Science Colleges, K. K. Wagh B.Ed. College and K. K. Wagh College of Fine Arts received the degree on this occasion. A total of 1315 students were awarded their degrees at the convocation ceremony. The Convocation began with a

majestic and grand academic procession followed by the University Song. Principal Dr. K. N. Nandurkar delivered welcome speech. Chief Guest Prof. Dr. A. B. Pandit congratulated the students and emphasizes the need of learning attitude after the completion of the degree also. President of K. K. Wagh Education Society Hon. Shri. Balasaheb Wagh in his presidential address requested students to be connected with the institution.

■ **Global Online Alumni Meet 2020**

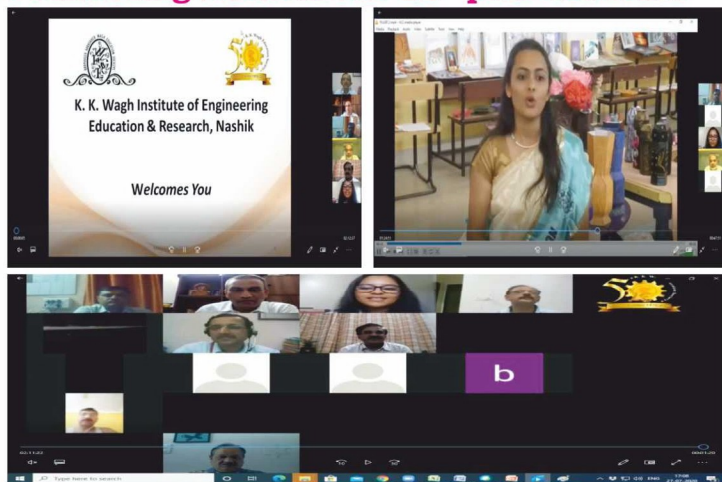


Global Online Alumni Meet on 24th May 2020

Global Online Meet Alumni meet of students passed out from K. K. Wagh Institute of Engineering Education and Research was organized on 24th May 2020. Total participants were 800 plus from countries like USA, Australia, Dubai, Singapore, Japan,

England etc. During this online meet the various cultural activities were organized by the alumni from USA. For this meeting Hon. President Shri. Balasaheb Wagh, Trustee Ashokbhai Merchant, Trustee Er. Sameer Wagh, Secretary Prof. K. S. Bandi, Principal Dr. K. N. Nandurkar, Ex. Principal Dr. Vasant D. Barve all Heads of department and staff of the institute were present. The response was very good and meeting continued for 7 hours. All members enjoyed the cultural activities performed by the alumni from the USA.

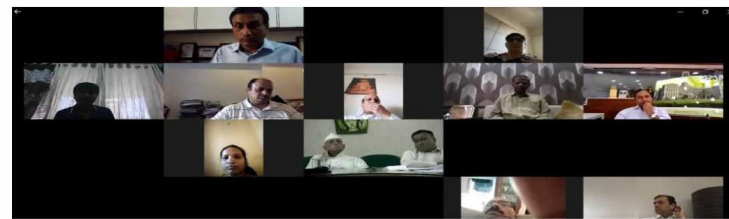
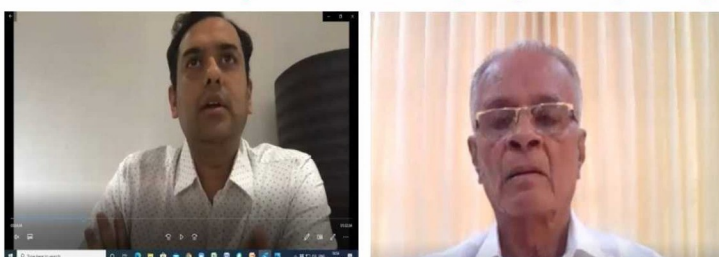
■ Counselling sessions for 12th pass Students



Counselling sessions for 12th pass students

Online Counselling session for 12th Pass students was organized by our institute on 28th May and 19th June 2020. Principal Dr. K. N. Nandurkar gave presentation about salient features of K. K. Wagh Education Society and K. K. Wagh Institute of Engineering Education and Research, Nashik. Prof. Dr. D. M. Chandwadkar (Head of E&TC Dept.) gave presentation of Admission Procedure for Engineering. Prof. Dr. S. S. Sane (Head of Computer Engg.), Prof. Dr. B. E. Kushare (Head of Electrical Engg.) gave the presentations of their department. Also the other Heads of department explained the importance of their Branch. Both the programs were anchored by Ms. Shweta Deshmukh (Student of Chemical Engineering Department).

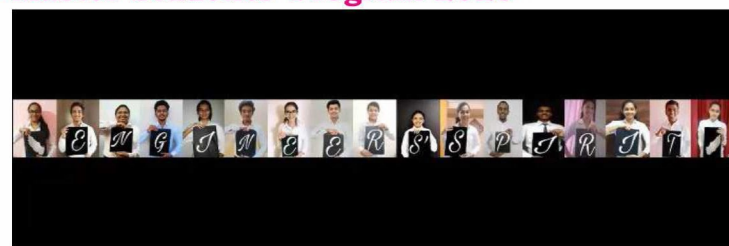
■ Association Meeting - Coordinated by Engineering College



Panel discussion on higher Studies: Post Covid 19

On 6th May 2020, Online meeting of the members of The Engineering Association of Managements of Un-aided Engineering Colleges (Maharashtra) was arranged and coordinated by our Engineering College. During the meeting the views related to impact of Covid 19 on Engineering Education Field were expressed by Hon. Dr. P. D. Patil (Vice Chancellor, Dr. D. Y. Patil Vidyapeeth, Pune), Hon. Dr. Mangesh Karad (Exec. Director, MIT-WPU, Pune), Hon. Shri. Bharat Agrawal (President, VIT University, Pune), Hon. Dr. Girish Desai (Director, PC Education Trust, Pune), Hon. Dr. S. B. Mujumdar (President, Symbiosis University, Pune) in Panel discussion. On this occasion Principal Dr. K. N. Nandurkar welcomed the panel members and Co-ordinated the panel discussion. Hon. President Shri. Balasaheb Wagh, Hon. Secretary Prof. K. S. Bandi, Hon. Trustee Er. Sameer Wagh, Principal Dr. K. N. Nandurkar and all Heads of department were present. The meeting was attended by all Trustees, Management representatives and Principals of various Engineering Colleges of Maharashtra.

■ Master Students' Program 2020



The Theme Reveal

The Indian Society for Technical Education (ISTE) Students' Chapter of K.K. Wagh Institute of Engineering Education and Research conducted the Master Students' Program Online for the first time in the history of ISTE. The online event was conducted from 21st May to 23rd May with an overwhelming response of an average of 130 participants for all 3 days. The Chief Guest was Mr. Amol Charegaonkar (Alumnus of Institute). The theme for this year's Master Students' Program (MSP) was based on "Emotional Intelligence and quotient". Top 17 speakers were chosen from the entire second year of Institute after conducting a series of auditions. The

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speakers were groomed and mentored by the speakers of previous MSP. The event was organized under the guidance of Principal Dr. K. N. Nandurkar and ISTE Faculty Advisor Prof. Mrs. Vaishali Lele. Principal Dr. K. N. Nandurkar, Dr. P. K. Shahababkar (Training and Placement Officer), Prof. Dr. S. Y. Kute (Academic, Dean), Prof. Dr. S. S. Naik, Prof. Dr. A. C. Pawar, Prof. Mrs V. R. Lele, Faculty Advisor of ISTE Students' Chapter and Mrs. A. L. Mourya, Coordinator, ISTE Students' Chapter were also present for this occasion.

Seminar on "Nature is Biggest Engineer" on 9th May 2020



Online seminar on "Nature is biggest Engineer"
An online seminar on "Nature is biggest Engineer" was organized on 9th may 2020 by the Applied Science and Math department for First year Engineering students. Mr. Rajesh Pandit, President, Namami Goda Foundation Nashik, Dr. Prajakta Baste, Principal, College of Architecture, Nashik and Mr. Chinmay Udgirkar, Actor and Vice President of Namami Goda Foundation Nashik addressed to all First year Engineering students on Environmental issues. Principal Dr. K. N. Nandurkar also addressed to all students on this occasion and he welcomed the guests for the seminar. The speakers guided the students about their role in reducing pollution and activities which can be taken up for environment protection.

Motivational program by Institute on 25th May 2020

Motivation webinar was organized online for all the staff of the institute on 25th May 2020 by resource person Dr. Dinesh Ghodke from Art of Living. He explained in details about how to live life without stress. It was attended by Hon. President Shri. Balasaheb Wagh, Trustee Er. Sameer Wagh, Principal Dr. K. N. Nandurkar, all Heads of the institute and staff of the institutes run by K.K.Wagh Education Society. This session was also attended by many citizens of Nashik as it was also made available on Face book live.



With
Dinesh Ghodke

Author, IIT Alumni,
TEDx Speaker, Coach,
Art Of Living faculty

"Get on the Happiness Express
to reach Good Health & 8 types of Wealth"

Data of activities during Lockdown period

Sr. No.	Activity	Number
1	Number of Online lectures conducted	3079
2	Number of Videos prepared	1718
3	Number of study material (PDF, PPTs etc)	2281
4	Number of online assignments provided	1400
5	Number of MCQs uploaded on ERP	29505
6	Number of online expert talks conducted	61
7	Number of e-Mentor meetings	148
8	Number of online certifications completed by staff (Coursera, Edx, Udemy, Alison, etc.)	623
9	Participation in webinars, workshops, FDPs	758

Webinars conducted by the Institute during Lockdown

Sr. No.	Topic	Speaker	Date	No. of Attendees
1	Challenges and Post Covid Implications for Education Sector	Dr.S.G.Deshmukh (Professor, IIT Delhi)	27/05/2020	500
2	Addressing Covid-19 Challenges Through Networking With Industries	Dr. L. N. Mittal (Ex. Professor, NITTR, Chandigarh)	05/06/2020	405
3	Happiness Express (Art of Living)	Mr. Dinesh Ghodke (Teacher AOL)	12/06/2020	854 on Zoom ; 1800+ on YouTube
4	Impact of Covid-19 on Higher Education	Dr. Vinayak S. Deshpande (Ex Pro VC, Nagpur University)	14/7/2020	388

FDP/Webinar conducted by Department

All department of the institute organized the Online FDP for the students, Academician and industry Professionals on various topic of their discipline. The Principal, Heads of department and senior faculties of respective department

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were resource person in addition to resource persons from outside from Industry and various reputed institutes of Maharashtra and India. Also departments organized various webinars on Technical topics as well as Motivational webinars for the student. The departments have organized FDP/Webinars on various dates as below

Name of Department	Name of Topic	Date of FDP/Webinars
Computer	Python Applications in Data Science	28, 29 & 30 May 2020
Production	Multi Criteria decision making in Manufacturing	26, 27 & 28 May 2020
Civil	Innovations and its protection under IPR	28 May 2020
E&TC	Engineering Problem solving using low cost hardware with MATLAB & Simulink	27 May 2020
Mechanical	Hybrid and Electrical Vehicles	29 May 2020
Electrical	Webinar: Holistic Approach Towards Reactive Power & Harmonic Distortion Management to avail benefits of kVAH billing	30 May 2020
Chemical	Sustainable Development in Chemical Processes	21, 22 & 23 May 2020
MCA	Working with R Programming	29 May 2020
MBA	Leadership Development: Targeting Youth	21 May 2020

■ Activities during Lockdown Period: T&P Cell

Training and Placement Cell of the institute conducted various activities during lockdown as below:

- Industry Connects: CEO and HR Heads are invited through digital Media for making Students Aware about Industry Expectations
- MOCK Personal Interviews through Digitals tools to make the Students Ready for Online campus Interview
- Alumni Connects: To share their success Journey from K K Wagh to Current Positions
- TPO Connects: To prepare the Students for Campus Interview
- Training Students for Foreign Languages (Japan & German)
- Webinars on Higher Study Opportunities
- Arranged Campus Interview for 11 companies: 38 Students are selected in this Lockdown Period with a Maximum Package of 11 Lacs.

■ Expert Lecture/Seminar/Courses/Workshop Attended:

- Computer Engineering departmental staff Prof. Ms. N. M. Pagare attended FDP at SPPU, Pune on Advanced Pedagogy for empowering teachers from 11th to 13th March 2020. Prof. Dr. S. S. Sane Head of Computer department and their staff have attended Webinar – OBE Implementation and Automation to achieve Excellence leading to Accreditation readiness on 6th April 2020. Prof. P. D. Rakibe has attended online workshop on IPR on 10th and 11th April 2020. Prof. S. T. Patil, Prof. P. D. Rakibe has attended One-week FDP

on IoT by NITTR, Chandigarh 10th to 14th April 2020. Prof. S. T. Patil, Prof. P. D. Rakibe has attended One-week FDP on “Boss Linux-Ubuntu Operating System” by IIT Bombay, PMMMNMTT, MHRD, Govt. of India on 15th to 21st April 2020. Prof. S. S. Banait, Prof. I. Priyadarshini, Prof. A. V. Taware have attended FDP on PHP and MYSQL by Spoken Tutorial IIT Bombay on 24th to 30th April 2020. Prof. Dr. S. M. Kamalapur, Prof. P. P. Vaidya, Prof. S. T. Patil, Prof. P. D. Rakibe, Prof G. R. Gupta, Prof N. M. Pagare have attended 3 days online workshop on “Education 4.0” by IQAC, Atharva College of Engineering, Mumbai from 28th to 30th April 2020.

- Production Engineering staff members Mr. A. D. Mandlik and Mr. N. S. Wakchaure participated in three days FDP on “Teaching Learning Enhancement” organized by IQAC, KKWIEER, Nashik during 2nd - 4th March 2020. Dr. N. B. Gurule and Mr. M. Y. Khalkar participated in two days FDP on “Research Promotion” organized by IQAC, KKWIEER, Nashik during 5th -6th March 2020. Prof. Mangesh Y. Khalkar and Prof. V. S. Gaikwad have completed Coursera seven day course on “Programming for Everybody (Getting Started with Python)” on 30/04/2020.
- Electrical Engineering staff Prof. M. R. Rade completed Coursera course on “Introduction to Battery Management System”. Prof. N. N. Jangle has completed Coursera course on “Electrical Power System and course on Programming for Everybody (Getting Started with Python)”. Prof. S.S. Khairnar has completed course on Computational Tool and Techniques: MATLAB, ANSYS. Prof. Dr. Mohan P. Thakre has attended Webinar on Data Science with MATLAB, Online course on “Introduction to Financial Markets”, Online course on “ Research collaborations”, Online Course on “ Learn from the Editors: Authoring in High-Impact Journals— Brazil” and Webinar on “Artificial Intelligence: Its Application in Engineering”. Dr. Prof. R. K. Munje attended Online course on “Write Professional E-mails in English”, Online course on “Build Your Professional ePortfolio in English”, Online course on “Creativity and Entrepreneurship” and Online course on “Speak English Professionally: In Person, Online & On the Phone”. Prof. R. S. Mane has attended online course on “Smart e Learning Content Development Course”.

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- Information Technology departmental staff Prof. Dr. (Mrs.) Preeti Bhamre participated in one day workshop on “Implementation of Choice Based Credit System at College level” conducted by Examination Section, Savitribai Phule Pune University, Pune at Faculty Development Centre, UGC-Human Resource Development Centre, SPPU, Pune on 17th March 2020 under the Scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching. Prof. Pratik R. Kadam completed the Coursera certifications on “Data Science Math Skills ” offered by Duke University, “Introduction to Data Science in Python” offered by University of Michigan and “The Data Scientist Toolbox” offered by John Hopkins University in April 2020. Prof. Rupali M. Bora attended one-week Faculty Development Programme on “LINUX AWK” organized by Department of Information Technology, Smt. Kashibai Navale College of Engineering, Pune in association with IIT Spoken-tutorial.org during 24th to 30th April, 2020.

■ Abstracts of papers presented during March-May 2020

Optimization of Supply Chain System in Multi-Product, Multi-Supplier Scenario Using Teaching-Learning-Based Optimization Algorithm

Prof. Dr. K. N. Nandurkar & Prof. Dr. P. J. Pawar (Production Department)

(Presented a paper at International Conference on Industrial Engineering and Operations Management, Dubai, UAE, 10-12 March 2020 organized by IEOM Society International)

Abstract: This paper presents the multi-objective optimization aspects of a supply chain with multi-product, multi-supplier system. The three objectives considered in this work are: minimization of the total cost of the supply chain, maximization of total quality level of supply chain, and maximization of service level of supply chain through optimum allocation of the order quantity of each product to each buyer. Various practical constraints such as product demand, shortage prevention, supply capacity of the supplier, and available storage space of the supplier are also considered. The optimization is carried out using a recently developed optimization method known as teaching-learning-based optimization (TLBO). The results of optimization are compared with those obtained by genetic algorithm (GA).

Mathematical Modelling of Material Removal Rate During Electric Discharge Machining Using Buckingham's Pi-Theorem

Prof. Dr. K. N. Nandurkar & Prof. V. S. Gaikwad (Production Department)

(Published paper under IOP Conf. Series: Materials Science and Engineering 810 (2020) 012049)

Abstract: In the present work an attempt has been made to model material removal rate (MRR) by using Buckingham's Pi-theorem during electric discharge machining (EDM) of shape memory NiTi alloy. Machining of Ni-Tialloy is mostly attempted by non-conventional methods of machining, and, especially by EDM, as this advance material imposes machinability issues when cut by conventional processes. However, EDM process has low material removal rate. In present investigation EDM of NiTi alloy is carried out using electrolytic copper toolon die sink type of electric discharge machine. The experimental-based mathematical model to predict MRR is developed varying process parameters such as gap current, pulse on time, pulse off time, voltage, workpiece electrical conductivity and tool electrode electrical conductivity during the experiments. The model developed using dimensional analysis and Buckingham pie the orem predicts the value of MRR close to the experimental observations with the accuracy of 91 % shows that the developed model could be used to predict MRR during EDM of NiTi alloy within the domain of the parameters selected in the present study.

Application of MADM Techniques to Develop Customer Oriented Product

- Prof. Dr. S.R. Gangurde (Production Department)
(Published a Book chapter in the “Studies in Systems, Decision and Control” book series (SSDC, volume 279, Springer ISBN: 978-3-030-42187-8)

Abstract: This chapter provides an approach to apply a multi-attribute decision making (MADM) method to evaluate the product design alternatives in respect to the customer and designer preferences. Customers employ a variety of heuristics when evaluating product alternatives. Different customer may have different choices for the particular product out of set of multi attribute alternatives of different brands or within the same brand also. Product design selection can be considered as a complex multi-attribute decision problem since the expectations differ from customer's as well as designer's point of view. Therefore, a proper mechanism is to be applied to decide on the most suitable product for the customer. MADM methods provide more scientific way to evaluate and select the best product design alternative. In this chapter, an example of personal data assistant (PDA) selection is considered as complex MADM problem. The alternatives of personal data assistant are evaluated using different MADM methods. The alternative are ranked on the basis of composite score 'Product Design Selection Index', PDSI (Pi). The ranking provided by these various methods is then compared.

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then compared. A novel quantitative approach is proposed for the comparison of alternatives in case of conflict in ranking.

■ **Stock Market Prediction Using Technical Analysis**

Prof. Dr. (Mrs.) Preeti Bhamre, Devwrat Nevevani, Prajwal Jadhav , Neha Pipada & Divyal Shewale (Information Technology Department)

(Published in International Journal of New Innovations in Engineering and Technology, Volume and issue No: Volume 13 Issue 3 – April 2020)

Abstract: Stock prices are volatile in nature. Stock prices are affected by variety of factors namely fundamental factors, technical factors and market sentiments. Fundamental factors like earning base and valuation multiple that drive stock prices are based on a company's earnings and profitability from producing and selling goods and services. technical factors like Inflation, Economic strength of market and peers, Incidental Transactions, Demographics, Liquidity relate to a stock's price history in the market pertaining to chart patterns, momentum and behavioral factors of traders and investors. The proposed work intends to make use of fundamental and technical factors to provide efficient stock trend's prediction. The trends obtained create opportunities for investors to make money that act as lucrative option in their annual income. The paper discusses strategies for obtaining useful data from NSE (National Stock Exchange), Investopedia and Money Control websites using web scraping libraries in python and storing same data in several files like .csv and excel. The stored data allows a proposed algorithm to perform feature wise analysis and obtain pattern recognition in stock prices data. This results in accurate investment and thereby leading to high profits for investors imperceptibility.

Keywords – Stock Market, Technical Parameters, NSE

■ **Investigation into burnishing to minimize heat treatment in drill manufacturing” in intentional Journal “Materials and Manufacturing Processes”**

Prof. Dr. P. J. Pawar (Production Department)

(Published paper in intentional Journal “Materials and Manufacturing Processes” published by Taylor and Francis, Vol. 35(7), pp.817-825)

Abstract: Burnishing is well known as a very economical and effective surface enhancement method. It not only improves surface finish but also surface hardness. This work proposes a novel approach for processing of the drill shank in which the existing heat treatment and grinding operations

of the shank are replaced by burnishing which results into minimization of cycle time, minimization of resources, such as labor, machine, energy, etc., and also eliminates the risk of accidents during heat treatment operation. However, to explore the benefit of burnishing process for this application to its fullest extent, it is necessary to determine the compromise best parameter values to achieve the desired surface finish as well as hardness so as to cater all functional requirements of these tool shanks. Hence, a multi-objective optimization version of “artificial bee colony algorithm” is employed for this purpose. With this new process, the tool shank is manufactured and tested as per IS 5099 standards for twist drills. The results are encouraging and indicate that the proposed process has potential to replace the existing heat treatment and grinding processes for manufacturing of hole making tools.

■ **Performance Analysis of Spiral and Conical Receivers for the Paraboloidal Dish Collector Using CFD**

Mr. Nilesh Wakchaure (Production Department)

(Published a Book chapter in the “ Springer Proceedings in Energy book series (SPE), Advances in Energy Research, Vol. 2 pp 23-33, Springer ISBN: 978-981-15-2661-9

Abstract: Paraboloidal dish collectors are widely used two-axis tracking collectors for cooking and allied applications. These collectors operate with 40–70% thermal efficiency for medium temperature applications. Conventionally, the cooking vessel is mounted at the focal point of the paraboloidal dish collector and the cooking vessel itself acts as a receiver. In order to improve the performance of these collectors, various receiver designs have been investigated by many researchers in the past. In the current study, the conical and spiral receivers have been suggested for a paraboloidal dish collector of aperture area 1.5625 m², concentration ratio of 10. The CFD simulation of the receivers with water as a working fluid is carried out using semi-implicit pressure linked model. The receivers' geometry is created using SolidWorks software. The system is installed at Nagpur [21° N, 79° E]; the experiments have been performed in the month of March and April. The study shows that, for the paraboloidal dish collector, the spiral receiver performs better as compared to the conical receiver; with different heat transfer liquids and appropriate thermal storage facilities, the system can be used for indoor cooking applications.

Prof. Dr. K. N. Nandurkar
PRINCIPAL

