



VSSUT NEWS LETTER

Volume – I

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Jan – Dec, 2016

From Vice Chancellor's Desk



It gives me immense pleasure that the VSSUT News Letter (January – Dec, 2016) is published. It will definitely give benefits to the readers to know about the activities made by the University and its faculties, staff and students during the period.

Prof. E. Saibaba Reddy

VISIT OF NAAC TEAM

The NAAC Peer team visited this University during January 13-16, 2016 and the University got the NAAC accreditation from 19th February, 2016.



VISIT OF COA TEAM

The Council of Architecture Expert team visited this University on 18th July, 2016 and approved the 5yr B.Arch. programme with an intake of 40 from the session 2016-17.

VISIT OF NBA TEAM

The NBA Expert team visited this University during July 29-31, 2016 and the University got the NBA accreditation for Five UG programmes Civil Engg. (5 years) and Electrical Engg, Mechanical Engg, Electronics & TC Engg and Computer Science & Engg. (2 years each) with effect from 29th September 2016..

8TH CONVOCATION

The 8TH Convocation of Veer Surendra Sai University of Technology was held on 8th November, 2016 in the Sir Visveswaraya University Auditorium. His Excellency the Governor of Odisha and Hon'ble Chancellor of VSSUT, Burla Dr. S.C. Jamir presided over the Convocation. The Managing Director & CEO, Tech Mahindra India and Chairman, NASSCOM Sri C. P. Gurnani delivered the convocation address as Chief Guest. The University awarded its first degree of Doctor of Science (Honoris Causa) to Sri C.P. Gurnani for his outstanding contribution to the field of Technology and Management. 792 (487 B.Tech, 223 M.Tech., 41 M.Sc., 25 MCA, 09 M.Phil and 08 Ph.D.) students of 2016 pass out batch were awarded degree. 23 gold medals were awarded in the convocation.



CREATION OF INNOVATION CENTRE

VSSUT has been selected for setting up of an innovation centre to carry out activities that facilitate knowledge creation, innovation and entrepreneurship activities. The primary objective is to develop the ideas and innovations of the students and the faculty members into a framework to offer a product or service to the business community for solving community problems.

SKILL DEVELOPMENT PROGRAM

University organised Skill Development Programme in various trades such as Electrical Wiring, Microsoft Excel, MS office, repairing of cell phones, Carpentry, Welding and digital ICs for local youths from 27th June to 2nd July 2016. 175 Nos. of participants were given training in the above fields to enhance their skill in the related field.

INDUSTRY-INSTITUTE INTERACTION

University organised a workshop on Industry-institute interaction on 23rd April 2016 in the campus. 14 leading industries participated in the programme where number of aspects of industry-institute partnership were discussed including deputing staff and students to industries, arranging short term course for industry personnel, engaging the industry

personnel in curriculum development and to participate as guest faculty.

List of Industries Participated :

| Sl.No. | Name of the industry |
|--------|---|
| 1. | Mahanadi Coalfields Ltd, Burla |
| 2. | National Aluminium Corporation Ltd |
| 3. | TTPS/NTPC Talcher Thermal Power Station, Angul |
| 4. | Vedanta Ltd, Jharsuguda |
| 5. | Hindalco Industries Ltd, Hirakud complex, Hirakud |
| 6. | Aditya Alumnum, Lapanga, Sambalpur |
| 7. | Bhusan Steel and Power Ltd |
| 8. | WESCO Utility, Burla |
| 9. | Hirakud Hydroelectric Project, Burla |
| 10. | Hirakud Dam Project, Burla |
| 11. | OCL India Ltd, Rajgangpur |
| 12. | TRL Krosaki Ref. Ltd |
| 13. | Actron Ispat & Power Ltd |
| 14. | SMC Power Generation Ltd, Jharsuguda |

INFRASTRUCTURE DEVELOPMENT

The University has taken up the construction work of several buildings to meet the increasing demand for Classrooms, Departments and residential purposes.

- 1) 100 seated Ladies Hostel (Rohini Hall of Residence)
- 2) University Guest House having 4 suites and 18 rooms are fully operational.

STAFF DEVELOPMENT PROGRAMME ORGANISED

- The Department of Civil Engineering organized a SDP on Recent Advances and Innovations in Transportation Engineering during April 25-30, 2016

- The Department of Electrical Engineering organized a SDP on “Application of AI Techniques to Power System Operation and Control” during May 02-07, 2016

CONFERENCE / WORKSHOP / SEMINAR / SYMPOSIA ORGANISED

| Sl No. | Name of the Seminars/ Conferences/ Workshops | Duration (Dates) | Coordinators |
|--------|--|---|---|
| 1 | RESONANCE 2K16 | 01.04.2016 | EE & EEE Deptt. |
| 2 | Management Capacity Enhancement- A Technical Education Perspective | 29th-31st Jan., 2016 | Prof. P K Hota Prof. B. B. Pati Mr. L. Dora |
| 3 | Skill Development Program- Electric Wiring | 27.06.2016 - 02.07. 2016 | Mr. D. K. Lal |
| 4 | Skill Development Program- Digital Integrated Circuits | 27.06.2016 - 02.07. 2016 | Mr. L. Dora |
| 5. | National Conference on “Technological Advancement in Manufacturing and Processing of New Materials” TAMPNM - 2016. | 9 th – 10 th April, 2016. | Dr. B.B. Pani Dr. Mihir Kumar Sutar |
| 6 | Eclectic Modeling and Analysis Techniques in Mechanical Engineering EMATME | 11 th – 16 th April 2016 | Dr. Mihir Kumar Sutar Dr. Sarojrani Pattnaik |

| | | | |
|-----|--|--|----------------------|
| 7 | Short Term Course (STP) on Recent Advances in Manufacturing Engineering (RAME) | 18 th - 23 rd April 2016. | Dr. S.K.Sarangji |
| 8. | Workshop on Ubiquitous Computing (WUC) | 31 st Jan. 2016 | CSE & IT & CA Deptt. |
| 9. | Workshop on Enterprenursh ip Development | 9 th Apr 2016 | CSE & IT Deptt. |
| 10 | Skill Development Programme (MS Office, MS- Excel) | 27 June – 2 nd July 2016 | CSE & IT Deptt. |
| 11 | Workshop on Internet of Things Devices and Sensor Networks | 22 nd – 23 rd October, 2016 | CSE & IT, CA |
| 12 | Workshop on Cloud Computing (CSI-CC- 2016) | 31 st October - 6 th November 2016 | CSE & IT , CA |
| 13. | National Workshop on Nanotechnol ogy: Present and Future Aspects in Science and Engineering (NASE– 2016) | 2 nd -3 rd July, 2016 | Prof.S.K.Swain |

Ph.D. AWARDED

The following students were awarded Ph.Ds in the year 2016

| Sl. No | Name of Scholar | Department |
|--------|------------------------|------------------|
| 1. | Sarita Tripathy | Chemistry |
| 2. | Sarat Chandra Nayak | Comp.Sc.& Engg |
| 3. | Bikramaditya Das | Electrical Engg |
| 4. | Narendra Ku. Yegireddy | Electrical Engg. |
| 5. | Umesh Kumar Rout | Electrical Engg. |
| 6. | Ambarish Panda | Electrical Engg. |
| 7. | Abhijit Sarangi | Physics |
| 8. | Bighnaraj Naik | CSE & IT |

NEW COURSES INTRODUCED

The University has introduced two B.Tech programmes specially designed for working engineers of Hindalco.

| Sl. No | Steam | Name of the Course | Intake |
|--------|--------|-------------------------------------|--------|
| 1. | B.Tech | Power Engineering | 15 |
| 2. | B.Tech | Manufacturing & Process Engineering | 15 |

PAPER PUBLISHED

1. P. K. Acharya and S. K Patro (2016) "Utilization of ferrochrome wastes such as ferrochrome ash and ferrochrome slag in concrete manufacturing", Waste Management Research DOI: 10.1177 / 0734242X16654751 (Sage), Vol. 34(8), pp 764-774.
2. S.Das, P.Saha, & S. K. Patro, (2016) Vibration-based damage detection

techniques used for health monitoring of structures: a review. Journal of Civil Structural Health Monitoring, 1-31. [DOI: 10.1007 / s13349-016-0168-5] (Springer), Vol.6, pp 477-507.

3. P. K.Acharya, S. K. Patro, & N. C. Moharana, (2016) Effect of Lime on Mechanical and Durability Properties of Blended Cement Based Concrete. Journal of The Institution of Engineers (India): Series A, 1-9. [DOI: 10.1007 /s40030-016-0158-y]. (Springer), Vol. 97(2), pp. 71-79.
4. P.K. Acharya and **S.K. Patro** (2016) "Acid Resistance, Sulphate Resistance And Strength Properties of Concrete Containing Ferrochrome Ash (FA) And Lime", Construction and Building Materials, Vol. 120, pp 241-250. (**Elsevier**)
5. P.K. Acharya, & **S.K. Patro** (2016). Use of ferrochrome ash (FCA) and lime dust in concrete preparation. Journal of Cleaner Production. [DOI:10.1016/j. jclepro. 05.042]. (**Elsevier**), Vol. 131, pp. 237-246
6. S.S.Swain, **S.K. Patro** & R. Sinha (2016)"Numerical Methodology for Dynamic Analysis of Buildings with Friction Dampers", *Bulletin of the New Zealand Society for Earthquake Engineering*, Vol. 49(3), pp 245-266.
7. **R.K Sahu, S. Panda**, A. Biswal, G.T.C. Sekhar,(2016) Design and analysis of tilt integral derivative controller with filter for load frequency control of multi-area interconnected power systems, ISA Transactions, Vol. 61, pp. 251-264.
8. **R.K. Sahu, S. Panda**, U.K. Rout, D.K. Sahoo, (2016) Teaching learning based optimization algorithm for automatic

- generation control of power system using 2-DOF PID controller, *Int. J. Elect. Power and Energy Systems*, ELSEVIER, Vol. 77, pp. 287-301.
9. **R. Pradhan**, B. Subudhi,(2016) Double Integral Sliding Mode MPPT Control of a Photovoltaic System, *IEEE Trans. Control System Technology*, Vol.24, No.1, pp.285-292.
 10. B. Subudhi, **R. Pradhan**,(2016) An Adaptive Predictive Error Filter based Maximum Power Point Tracking Algorithm for a Photovoltaic System, *IET Journal on The Journal of Engineering*, vol.2, no.1, pp.1-28.
 11. **S. Panda**, A.K. Baliarsingh, S. Mahapatra, S.C. Swain,(2016) Supplementary damping controller design for SSSC to mitigate sub-synchronous resonance, *Mechanical Systems and Signal Processing*, ELSEVIER, Vol. 68, pp. 523-535.
 12. B.K. Sahu, P.K. Mohanty, **S. Panda**, (2016) A novel hybrid LUS-TLBO optimized fuzzy-PID controller for load frequency control of multi-source power system, *Int. J. Elect. Power and Energy Systems*, ELSEVIER, Vol. 74, pp. 58-69.
 13. S.C. Swain, **S. Panda**, S. Mahapatra, (2016) A Multi-Criteria Optimization Technique for SSSC Based Power Oscillation Damping Controller Design, *Ain Shams Engineering Journal*, ELSEVIER, Vol. 7, No. 2, pp. 553-565.
 14. **B. Mohanty**, S. Tripathy,(2016) A teaching learning based optimization technique for optimal location and size of DG in distribution network, *Journal of Electrical Systems and Information Technology*, ELSEVIER, Vol. 3, pp. 33–44.
 15. **P. Ray and D. Mishra** (2016), Support Vector Machine Based Fault Classification and Location of a Long Transmission Line, *Int. J. Engineering Science and Technology (JESTECH)*, ELSEVIER, Vol. 19, Issue 3, pp. 1368-1380.
 16. **P.K. Hota**, A.P. Naik,(2016) Analytical Review of Power Flow Tracing in Deregulated Power System, *American Journal of Electrical and Electronics Engineering*, DOI: 10.12691/ajeee-4-3-4, Vol.4, No.3, pp.92-101.
 17. S. K. Mohapatra, **S. Panda** (2016), Stability enhancement with SSSC-based controller design in presence of non-linear voltage-dependent load, *Int. J. Intelligent Systems Technologies and Applications*, *INDERSCIENCE*, Vol. 15, Issue 2, pp. 163-187.
 18. **S. Behera**, B.D. Subudhi, **B.B. Pati**, (2016) Design of PI Controller in Pitch Control of Wind Turbine: A Comparison of PSO and PS Algorithm, *International Journal of Renewable Energy Research*, Vol. 6, pp.271-281.
 19. **S. Behera**, **M. Tripathy**, J.K Satapathy (2016), A novel approach for voltage secure operation using Probabilistic Neural Network in transmission network, *J. of Electrical Systems and Information Technology*, ELSEVIER, Vol. 3, Issue 1, pp. 141–150.
 20. **D.K.Lal**, A.K. Barisal, M. Tripathy (2016), Grey wolf optimizer algorithm based Fuzzy PID controller for AGC of multi-area power system with TCPS, *Procedia Computer Science*, ELSEVIER Vol. 92, pp. no. 99-105.
 21. **P. K. Hota**, N. C. Sahu and **A. K. Barisal**,(2016) “Multiobjective generation dispatch of a hybrid system with fuzzy based space search algorithm”, *International Journal on Electrical Engineering and Informatics*, SCI journal, Vol 8, No. 3 pp -

22. Prakash Chandra Sahoo, Debasmita Mishra, Janaki Dehury,(2016) "A Study On Fabrication & Characterization of Flexible Elastomeric Ceramic Composites", Journal of Basic and Applied Engineering Research (JBAER), Jan, 3(2):145-150.
23. A. Lava Kumar, Dinesh Kumar Mishra "Agglomeration behavior of solid waste materials in steel plants" Emerging materials research, Vol.5, pp-171-176.
24. Bikram Keshari Mishra, Nihar Ranjan Nayak, Amiya Kumar Rath (2016) "Assessment of basic clustering techniques using teaching-learning-based optimisation" International Journal Knowledge Engineering and Soft Data Paradigms, Vol. 5, No. 2, pp. 106-122, Inderscience
25. S.C.Nayak, B.Misra, H. S. Behera (2016) "Fluctuation prediction of stock market index by adaptive evolutionary higher order neural networks", International Journal of Swarm Intelligence, Inderscience. Vol.2, Issue 2-4, pp. 229-253.
26. K.K.Sahu, S.R.Sahu, G.R.Biswal, P.K.Sahu, H. S. Behera (2016) "Chemical Reaction Optimization: A Hybrid technique applied to Functional Link Artificial Neural Networks with Least Mean Square Learning for Foreign Exchange Rates Forecasting", International Journal of Swarm Intelligence, Inderscience, Vol.2, Issue 2-4, pp. 254-282.
27. K.K.Sahu, S.R.Sahu, S.C.Nayak, H. S. Behera (2016) "Forecasting Foreign Exchange Rates Using CRO Based Different Variants of FLANN and Performance Analysis", International Journal of Computational System Engineering, Inderscience. Vol.2, Issue-4, pp. 190-208.
28. S. C. Nayak, B. B. Misra, & H. S. Behera (2016). Improving Performance of Higher Order Neural Network using Artificial Chemical Reaction Optimization: A Case Study on Stock Market Forecasting. Applied Artificial Higher Order Neural Networks for Control and Recognition, IGI Global, pp. 253-280.
29. S. C. Nayak, B. B. Misra, & H. S. Behera (2016). Adaptive Hybrid Higher Order Neural Networks for Prediction of Stock Market Behavior. Applied Artificial Higher Order Neural Networks for Control and Recognition, IGI Global, pp.174-191
30. D. P., Kanungo, Janmenjoy Nayak, B., Naik and H. S. Behera,(2016) "Hybrid Clustering using Elitist Teaching Learning based Optimization- An Improved Hybrid Approach of TLBO", International Journal of Rough Sets and Data Analysis (IJRSDA), IGI-Global, Vol. 3(1), pp. 1-19.
31. Bighnaraj Naik, Janmenjoy Nayak and H.S. Behera, (2016) "An efficient FLANN Model with CRO based Gradient Descent Learning for Classification", International Journal of Business Information Systems (IJBIS), Inderscience Vol.21, No.1, pp.73 – 116.
32. Swati Mishra, Sanjaya ku. Panda & Satyabrata Das.(2016) An Efficient Intra-Server and Inter-Server Load Balancing Algorithm for Internet Distributed Systems, IJRSDA: Volume 4, Issue 1, PP1-18, (IGI global)
33. Sohan Ku. Pandey, Sanjaya ku. Panda & Satyabrata Das (2016) A Customer-Oriented Task Scheduling for Heterogeneous Multi-cloud Environment", IJCAC: Volume 6, Issue 4, pp.1-17 (IGI global)

34. P. K.Das, H. S. Behera, and B. K. Panigrahi.(2016) "A hybridization of an improved particle swarm optimization and gravitational search algorithm for multi-robot path planning." *Swarm and Evolutionary Computation, Elsevier*, Vol. 28, pp. 14-28.
35. P. K.Das, H. S. Behera, Swagatam Das, H. K. Tripathy, B. K. Panigrahi, and S. K. Pradhan. (2016) "A Hybrid Improved PSO-DV Algorithm for Multi-Robot Path Planning in a Clutter Environment." *Neurocomputing, Elsevier*, Vol-207,pp. 735-753.
36. P. K.Das, H. S. Behera, and B. K. Panigrahi. (2016) "Intelligent-based multi-robot path planning inspired by improved classical Q-learning and improved particle swarm optimization with perturbed velocity." *Engineering Science and Technology, an International Journal, Elsevier*, Vol. 19, no. 1: 651-669.
37. D. Kar, S. Panigrahi, and S. Sundararajan, (2016) "SQLiGoT: Detecting SQL Injection Attacks using Graph of Tokens and SVM," *Computers & Security, Elsevier*, vol. 60, pp. 206-225, 2016, doi: 10.1016/j.cose.2016.04.005.
38. D. Kar, S. Panigrahi and S. Sundararajan, (2016) "SQLiDDS: SQL Injection Detection using Document Similarity Measure", *Journal of Computer Security, IOS Press*, pp. 1-33, doi: 10.3233/JCS-160554.
39. Sushree Bibhuprada B. Priyadarshini, S. Panigrahi, (2016) "Redundant Data Minimization Using Hexagonal Scalar Premier Neighbourhood for Optimum Camera Actuation Scheme", *IET Journal of Engineering, IET*, pp. 1-11, 2016, doi: 10.1049/joe.2016.0011.
40. Sharmila Subudhi, S. Panigrahi, (2016) "Use of Fuzzy Clustering and Support Vector Machine for Detecting Fraud in Mobile Telecommunication Networks", *International Journal of Security and Networks (IJSN), Inderscience Publishers*, vol. 11, no. 1-2, pp. 3-11, doi: 10.1504/IJSN.2016.075069.
41. Sanjaya K. Panda and Prasanta K. Jana, (2016) "Uncertainty-Based QoS Min-Min Algorithm for Heterogeneous Multi-cloud Environment", *Arabian Journal for Science and Engineering, Springer*, Vol. 41, Issue 8, pp. 3003-3025.
42. R.Giri & G.Nath, (2016) "Physicochemical study of extractants for extraction of rare earth element", *Journal of Analytical Science and Technology*, DOI10.1186/s40543-016-0101-x.
43. A. Tripathy, G. Nath and R.Paikaray, (2016) "Determination of compatible Solvent concentration for dewaxing of crude oil using ultrasonic technique", *Journal of Acoustical Society of India*, Vol.43, No.3, pp-138-145.
44. G. Nath, B.K. Lotte, P.P. Tripathy, R. Giri and R. Paikaray, (2016) "Study of physical and acoustical properties of silver nanofluid", *Journal of Pure and Applied Ultrasonics*, Vol.38, No.2, pp -35-39. ISSN 0256-4637.
45. T.J.Jose, A.Simi, M.D.Raju, and P.L.Praveen(2016), "Thermodynamic and Ultraviolet Stabilities of para-azoxyanisole: A Nematic Liquid Crystal", *Int. J. Macro & Nano Phys.*, Vol. 1, pp-1.
46. A. Acharya, R. L.Nayak, T.Sahoo(2016), "deuteron stripping reaction on mirror nuclei of ^{16}O , ^{28}Si , ^{24}Mg and ^{40}Ca ", *Int. J. Applied & Pure Science & Agriculture* 2 6
47. P. R. Das, R. Padhee, B.N. Parida, R N P Choudhary(2016): "Structural and Dielectric Properties of $\text{Na}_2\text{Pb}_2\text{Nd}_2\text{W}_2\text{Ti}_4\text{V}_4\text{O}_{30}$ Ferroelectric Ceramics", *Indian J. Phys.* 90 (2) 155-162.

48. B.N.Parida, **Piyush R Das**, R Padhee, and R N P Choudhary (2016): “Ferroelectric phase transition and conduction mechanism of $\text{Li}_2\text{Pb}_2\text{La}_2\text{W}_2\text{Ti}_4\text{Ta}_4\text{O}_{30}$ ”, *J. Mater. Sci. Mater. Electron.* 27 (1) 342-350.
49. C. Behera, R.N.P. Choudhary and **Piyush R. Das**(2016): “Structural, dielectric, impedance and magneto-electric properties of mechanically synthesized $(\text{Bi}_{0.5}\text{Ba}_{0.25}\text{Sr}_{0.25})(\text{Fe}_{0.5}\text{Ti}_{0.5})\text{O}_3$ nanoelectronic system”, *Mater. Res. Express*, 3 035005
50. A. Mekap, **P. R. Das** and R.N.P. Choudhary(2016): “Non-linear Electrical Characteristics of ZnO Modified by Trioxides Sb_2O_3 , Bi_2O_3 , Fe_2O_3 , Al_2O_3 and La_2O_3 ” *J. Electronic Materials*, 45 (8) 4338-4349.
51. A.Mohapatra, **P. R. Das** and R.N.P. Choudhary (2016): “Structural and electrical properties of $\text{Bi}_3\text{La}_2\text{Ti}_3\text{FeO}_{15}$ ceramics” *J. Mater. Sci. Mater. Electron*, 27 (9) 9136-9142.
52. S K Basiruddin and **S K Swain*** (2016) “Phenylboronic acid functionalized reduced graphene oxide based fluorescence nano sensor for glucose sensing” *Materials Science & Engineering: C*, 58, 103-109.
53. K Prusty and **S K Swain***(2016) “Nano CaCO_3 imprinted starch hybrid Polyethylhexylacrylate/polyvinylalcohol nanocomposite thin films” *Carbohydrate Polymers*, 139, 90-98.
54. N Sarkar, G Sahoo, R Das, G Prusty, **D Sahu**, and **S K Swain***(2016) “Anti-corrosion Performance of Three Dimensional Hierarchical PANI@BN Nano hybrids. *Industrial & Engineering Chemistry Research*, 55(5), 2931-2940.
55. G C Pradhan and **S K Swain***(2016), “Graphite reinforced oxygen barrier conducting starch nanocomposites” *Polymer composites*, 37(7), 2083-2091.
56. P.K. Panda, **R.B. Panda**, P.K. Dash, (2016) Assessment of Water Quality Index of River Salandi at Hadagada Dam and Its Down Stream upto Akhandalmani, Bhadrak, Odisha, India, *American Journal of Water Resources*, 4(2), 44–53.
57. B. Acharya, P.S. Guru, **S. Dash**, (2016) Tween-80–n-butanol / isobutanol – Diesel + Kerosene) –Water microemulsions – Phase behavior and fuel applications, *Fuel*, 171, 87–93.
58. **T. Biswal**, B. Barik, P.K. Sahoo, (2016) Synthesis and Characterization of Magnetite-Pectin-Alginate hybrid Bionanocomposites, *Journal of Materials Science and Nanotechnology*, 4(2), 1–8.
59. **T. Biswal**, M. Priyadarsini, P.K. Sahoo (2016), A Short Review on Fire Retardant Polymeric Materials, *European Journal of Biomedical and Pharmaceutical Sciences*, 3(8), 108–116.
60. S.S. Sethi, S. Kumar, **A.K. Panda**, R.K. Singh, (2016) Valorization of Jatropa Seed to Fuel and Chemical Feedstock using a Thermochemical Conversion Process, *Biofuels*, 2016, DOI: 10.1080 / 17597269.2016.1149767.
61. **A.K. Panda**, S. Murugan, R.K. Singh, (2016) Performance and Emission Characteristics of Diesel Fuel produced from Waste Plastic Oil obtained by Catalytic Pyrolysis of Waste Polypropylene, *Energy Sources A: Recovery, Utilization, and Environmental Effects*, 38(4), 568–576.
62. **B.N. Ghosh**, M. Lahtinen, E. Kalenius, P. Mal, K. Rissanen, (2016) 2,2':6',2''-Terpyridine trimethylplatinum(IV) Iodide Complexes as Bi-functional Halogen Bond Acceptors, *Crystal Growth & Design*, 16, 2527–2534, 2016.
63. B. K. Shaw, M. Das, A. Bhattacharyya, **B.N. Ghosh**, S. Roy, P. Mandal, K. Rissanen, S. Chattopadhyay, S. K Saha (2016), Field-induced Ferromagnetism due

- to Magnetostriction in 1-D Helical Chain, *RSC Advances*, **6**, 22980–22988.
64. A. Bhattacharyya, **B.N. Ghosh**, K. Rissanen, S. Chattopadhyay, (2016) Synthesis, Characterization and Self-assembly of Three Dicyanamide Bridged Polynuclear Copper(II) Complexes with N₂O Donor Tridentate SCHIFF bases as Blocking Ligands, *Polyhedron*, **117**, 138–147.
65. **S. K. Padhan**, G. V. V. Jagannadha Rao, Hemant Kumar Nashine and Z. Kadelburg, (2016) Common fixed point results using $(\varphi_1, \varphi_2, \varphi_3)$ -Contractive conditions in orbitally 0- complete partial metric spaces, *Bulletin of Mathematical Analysis and Applications*, Vol. 8 pp 12-24.
66. **S.K. Padhan**, A.K. Bhurjee and P.K. Behera, (2016) Variational problems and its duality in Banachspaces, *Journal of information & Optimization Sciences*, Vol 37 pp 591-604.
67. B. Jena, **S. K. Paikray**, U. K. Misra, (2016) A Proof of Tauberian Theorem For Double CesaroSummability Method, *International Journal of Mathematics and Mathematical Sciences*, Vol 2016, pp. 1- 4, ISSN: 0161 – 1712, NY 10017, USA.
68. S. K. Indrajit, S. Routray, **S.K. Paikray**, U. K. Misra, (2016) Fuzzy Economic Production Quantity model with Time Dependent demand rate, *Scientific Journal of Logistics*, LogForum, vol. 12 (3), 2016, pp. 193-198, DOI: 10.17270 / J.LOG.2016.3,
69. S. Barik, **S. K. Paikray**, S. Misra, U. K. Misra, (2016) A Deteriorating Inventory Model with shortages under price dependant Demand and Inflation, *Asian Journal of Mathematics and Computer Research*, vol. 8, Issue 1, pp. 14-25,
70. G.T. Chandra Sekhar, **R.K. Sahu**, A.K. Baliarsingh and **Sidhartha Panda** (2016)“Load frequency control of power system under deregulated environment using optimal firefly algorithm” *International Journal of Electrical Power and Energy Systems* (Elsevier), Vol. 74, pp. 195–211.
71. **S. Behera**, C. P. Sahoo, B. Subudhi, **B. B. Pati** (2016) “Reactive power control of isolated wind-diesel hybrid power system using grey wolf optimization technique”, in *Procedia Computer Science* (Elsevier), Vol.92, pp. 345 – 354.
72. Ambarish Panda, **M. Tripathy**. (2016) Solution of wind integrated thermal generation system for environmental optimal power flow using Hybrid algorithm. *Int. Journal of Electrical Systems and Information Technology, Elsevier Sciences*, Vol.3, Issue.2, pp. 151-160.
73. R. Panda, S., Agrawal, L. Samantaray and Ajit Abraham, (2016) “An evolutionary gray gradient algorithm for multilevel thresholding of brain MR images using soft computing techniques”, *Applied Soft Computing*, Elsevier, vol. 50, pp. 94-108, Nov. 2016.
74. R. K. Barik, & M.Pradhan, (2016) “Efficient ASIC and FPGA Implementation of Cube Architecture,” *IET Computer & Digital Techniques Journal*, 17 pp, DOI:10.1049/iet-cdt.2016.0043 , August 2016
75. C. Karri, U. R. Jena, (2016) “Fast vector quantization using a Bat algorithm for image compression”, *Engineering Science and Technology Journal*, Elsevier, Volume 19, Issue 2, Pages 769–781.
76. F. Mohanty, **S.K. Swain*** (2016) “Effect of Graphene Platelets on the Thermal and Conducting Properties of Poly (Ethyl Methacrylate)” *Advances in Polymer Technology* (Wiley), DOI 10.1002 / ADV21790

77. P.K. Panda, **R.B. Panda**, P.K. Dash (2016) "Seasonal Variation of Physico-Chemical Parameters of River Salandi from Hadagada Dam to Akhandalmani, Bhadrak, Odisha, India" *IOSR Journal of Environmental Science, Toxicology and Food Technology (IOSR-JESTFT)* 10(11), 15–28, DOI: 10.9790/2402-1011031528

78. P.K. Panda, **R.B. Panda**, P.K. Dash (2016) "Assessment of Water Quality Index of River Salandi at Hadagada Dam and Its Down Stream up to Akhandalmani, Bhadrak, Odisha, India" *American Journal of Water Resources*, 4(2), 44–53, 2016. DOI: 10.12691/ajwr-4-2-3

79. **Sarat Chandra Patra, M. Vijay & Achyut K. Panda**, (2016) Production and characterization of Bio oil from Gold Mohar (*Delonix Regia*) seed through pyrolysis process, pages 1-6, Aug 2016, doi=10. 1080 /01430750 .2016. 1222958, International Journal of Ambient Energy.

WORKSHOP /SHORT TERM COURSE / CONFERENCE ATTENDED

The following no. of teachers have attended STC, Conference and Workshop during 2016.

| Sl. No | Name of the Department | No. Of faculty members attended the event |
|--------|-------------------------|---|
| 1. | Civil Engineering | 07 |
| 2. | Electrical Engg. & EEE | 18 |
| 3. | Mechanical Engineering | 23 |
| 4. | Electronics & TC Engg. | 30 |
| 5. | Computer Sc. Engg. & IT | 11 |
| 6. | Production Engineering | 03 |

| | | |
|--------------|------------------------------|------------|
| 7. | Metallurgy & Materials Engg. | 18 |
| 8. | MCA | 13 |
| 9. | Physics | 06 |
| 10. | Chemistry | 22 |
| 11. | Mathematics | 02 |
| 12. | Humanities | 02 |
| Total | | 155 |

BOOKS AUTHORED

Besides teaching and conducting research, the faculty members are active in authoring books. During the year 2016 the following books were authored by the faculty members.

| Sl. No | Name of the faculty member | Name of the Books | Publisher |
|--------|-------------------------------------|---|-----------------------------|
| 1. | Dr.S.K.Patro & others | Fine tuning of Road and Building Projects: An outcome of Practice | IK Publishers. |
| 2. | Dr.S.K. Panigrahi & Dr.C.R. Mohanty | Advances of Civil Engineering | |
| 3. | Dr. D.Mishra | Basic Mechanical Engineering | India Tech Publishers |
| 4. | Dr.D. Dhupal | Laser Micro Machining On engineering ceramics | Lambert Academic Publishers |

CAMPUS SELECTION

17 Nos. of companies have visited the University for Campus Recruitment. The Training & Placement Cell offered jobs to 642 nos. of students through campus recruitment programme. The details of placement are given below.

| Sl. No | Name of Recruiting company | No. recruited |
|----------------------------|----------------------------|---------------|
| 1 | HINDALCO | 06 |
| 2 | PRADAN | 16 |
| 3 | SAPLAB | 02 |
| 4 | TCS | 12 |
| 5 | Aptus Data Lab | 01 |
| 6 | Mind fire solution | 01 |
| 7 | Infosys | 145 |
| 8 | WIPRO | 113 |
| 9 | Accenture | 234 |
| 11 | Vedant | 28 |
| 12 | MSIL | 5 |
| 13 | Kreeti | 1 |
| 14 | Delloite | 17 |
| 15 | Aptus | 6 |
| 16 | TATA STEEL | 6 |
| 17 | Tech Mahnidra | 43 |
| Total No. Of offers | | 642 |

PROJECTS & GRANTS RECEIVED

| Sl. No. | Name of the funding Agency | Department | Amount in lakhs | Total Amount in lakhs |
|---------|----------------------------|-------------------------------|-----------------|-----------------------|
| 1. | Govt. of Odisha | Development of Technology Lab | 500.00 | |
| | | Infrastructure | 600.00 | |

| | | | | |
|--------------|------------------------|-------------------|-------|----------------|
| | | re Development | | 1221.00 |
| | | Equipment | 75.00 | |
| | | Innovation Centre | 46.00 | |
| 2 | DST | Elect. Engg. | 15.46 | 15.46 |
| 3. | UGC | Mechanical Engg. | 14.57 | 14.57 |
| 4. | TEQIP | | | 200.00 |
| 5. | QIP | | | 29.50 |
| 6. | Institute of Engineers | MME | 0.50 | 0.50 |
| TOTAL | | | | 1481.03 |

FACULTY MEMBERS JOINED

| Post | Name of faculty | Department |
|-------------------|-------------------------------|-------------|
| Professor | Dr. U.R. Jena | EL & TCE |
| | Dr. Manas Ranjan Panigrahi | Physics |
| Asso. Professor | Dr. B.B. Mangaraj | El & TCE |
| | Dr. Sumanta Panda | Mechanical |
| | Dr. Padmanav Dash | Mechanical |
| | Dr. Kamal Pal | Production |
| | Dr. Priyaranjan Mohapatra | Chemistry |
| | Dr. Trinath Biswal | Chemistry |
| | Dr. Susanta Kumar Paikray | Mathematics |
| | Dr. Sushanta Kumar Badjena | MME |
| | Dr. Chitta Ranjan Deo | Mechanical |
| | Dr. Saubhagya Kumar Panigrahi | Civil |
| | Dr. Banaja Mohanty | Electrical |
| | Dr. Prasanta Kumar Pradhan | Mechanical |
| | Dr. Punya Priya Mishra | Mechanical |
| Dr. Ganeswar Nath | Physics | |
| Dr. Nilamani Bhoi | El & TCE | |

| | | |
|-----------------|----------------------------|-------------------|
| | Dr. Anjana Acharya | Physics |
| | Dr. Siba Prasada Panigrahi | Electrical |
| | Dr. Manas Ranjan Senapati | IT |
| | Dr. Arunanshu Mahapatro | El & TCE |
| | Dr. Harish Kumar Sahoo | El & TCE |
| | Dr. Arun Kumar Rout | Production |
| | Dr. Nirmala Kumar Kund | Production |
| | Dr. Bharati Mohapatra | Architecture |
| | Dr. Pradip Kumar Sahu | IT |
| | Dr. Gyana Ranjan Biswal | EEE |
| | Dr. Anil Kumar Kar | Civil |
| Asst. Professor | Dr. Pandaba Patro | Mechanical |
| | Dr. Hrushikesh Barick | Mechanical |
| Asst. Professor | Mrs. Lipsamayee Mishra | Production |
| | Miss Smita Pradhan | Production |
| | Mrs. Sunita Sethy | Production |
| | Mrs. Anisha Ekka | Production |
| | Ms. Sagarika Rout | Electrical |
| | Mrs. Alina Dash | Comp. Sc. & Engg. |
| | Sri Layalitdev Das | Mechanical |
| | Sri Sameet Kumar Sahu | Production |
| | Sri Premananda Ekka | Production |
| | Mrs. Manila Mallik | MME |
| | Sri Anil Kumar Murmu | Chemical |
| | Sri Birendra Kumar Barik | Production |
| | Sri Amit Mallick | Electrical |
| | Sri Shasanka Sekhar Dalai | Mechanical |
| | Sri Prasanta Barla | Hum. (Mgt) |
| | Dr. Ramakrishna Dandapat | Civil |
| | Sri Subrat Kumar Sethi | El & TCE |
| | Dr. Prasanta Kumar | Hum.(English) |

| | | |
|--|--------------------------------|-------------|
| | Padhi | |
| | Sri Pratyusha Pratik | Electrical |
| | Mrs. Lipika Parida | Chemical |
| | Dr. Bigyan Ranjan Jali | Chemistry |
| | Sri Gourahari Behera | MME |
| | Sri Alok Kumar Ray | Mechanical |
| | Sri Pratap Kumar Pradhan | Civil |
| | Mrs. Kshiramani Naik | IT |
| | Dr. Jasvirnder Pal Singh Virdi | Physics |
| | Sri Ajaya Kumar Das | Civil |
| | Sri Jatin Kumar Pradhan | Electrical |
| | Dr. Nabin Kumar Sahu | Mathematics |

STAFF RETIRED

The following faculty / staff members were retired / relieved from duties during the year 2016.

| Sl. No | Name of Staff & Designation | Date of Retirement / Relieve |
|--------|---------------------------------|------------------------------|
| 1. | Sri. Jiban Suna, Lab. Attendant | 30.04.2016 |
| 2. | Sri Rabindra Das Peon | 31.07.2016 |
| 3. | Sri R.K.Pati Section Officer | 31.12.2016 |

AWARD RECIVED BY FACULTY MEMBERS

- Prof. Sanjaya Kumar Patro, Professor of Civil Engg. was awarded with Civil Engineering Division-First Prize during the 57th Annual Session of Odisha Engineering Congress, 2016 for the paper entitled "Seismic

Performance of Shear Frame Buildings with Friction Dampers”

- Prof. Sanjaya Kumar Patro, Professor of Civil Engg. was awarded with Syed Mumtaz Ali Memorial Award during the 57th Annual Technical Session of Institution of Engineers (India) Orissa State Centre, 2016 for the paper entitled “Sustainable Concrete Using Ferrochrome Ash as Partial Replacement of Cement”
- Prof. P.K.Hota, Professor of Electrical Engg. has received the award GOVINDA GUPTA MEMORIAL RUNNING SHIELD by the Institution of Engineers, Odisha State Centre on 15th September, 2016.
- Prof. P.K.Hota, Professor of Electrical Engg. has been awarded Certificate of Appreciation-2016 in honour of distinguished contribution in the area of Technical education and highly commendable services rendered for the growth of Technical Education System in the state of Odisha by Odisha Section of the Indian Society of Technical Education (ISTE), New Delhi on 24th September, 2016.
- Prof. R. Panda received Highly Cited Research Award from “Swarm and Evolutionary Computation” Journal, Elsevier for the Year 2016.

NON-TEACHING STAFF APPOINTED

The following non-teaching staff (contractual) joined in the University during 2016.

| Sl No | Name & Designation | Department |
|-------|--|---------------|
| 01 | Mrutyunjay Das, Mech Gr-III | Elect. Engg. |
| 02 | SurjyakantaSahoo, Mech Gr-III | El & TC Engg. |
| 03 | GobardhanSuna, Jr. Instructor | Civil Engg. |
| 04 | Devi PrasannaKanungo, Jr. Instructor | IT |
| 05 | Suraj Kumar Mishra, Jr. Instructor | El & TC Engg. |
| 06 | Sameer Kumar Behera, Jr. Instructor | Elect. Engg. |
| 07 | Sanjib Kumar Jena, Jr. Instructor | Elect. Engg. |
| 08 | Sradhanjali Panda, Attendant | Chemical Engg |
| 09 | Mahendra Kumar Meher, Attendant | Chemical Engg |
| 10 | Chandan Kumar Pradhan, Mech Gr-III | MME |
| 11 | SanjayaJagat, Mech Gr-III | Mech. Engg. |
| 12 | Tapa PradiptaSanjibita Das, Caretaker | DSW |
| 13 | RatnakarSahoo, Jr. Instructor | MME |
| 14 | Laxman Munda, Jr. Instructor | Workshop |
| 15 | Prasanta Kumar Samal, Jr. Instructor | Prod. Engg. |
| 16 | Dibya Pratap Naik, Jr. Instructor | MME |
| 17 | Debraj Pandey, Jr. Instructor | Prod. Engg. |
| 18 | SachidanandaBarik, Jr. Instructor | Workshop |
| 19 | Amit Kumar Sahoo, Jr. Instructor | Elect. Engg. |
| 20 | Debashish Mishra, Jr. Instructor | CSE |
| 21 | SujitMohapatra, Jr. Instructor | IT |

| | | |
|----|--|------------------|
| 22 | Ramji Dehury, Jr. Instructor | El & TC Engg. |
| 23 | Swarnalata Panda, Jr. Instructor | Chemical Engg |
| 24 | Jashibhusan Pradhan, Jr. Instructor | Mech. Engg. |
| 25 | IndrajeetBhoi, Jr. Instructor | Workshop |
| 26 | BrajaKishorOjha, Jr. Instructor | Civil |

STUDENTS ACTIVITIES

- The Annual Athletic meet of the University Illumina-2K16 was held during 21-22, January, 2016. More than 40 athletic events were conducted.
- The Biju Patnaik Birthday celebration Marathan was held on 5th March, 2016. About 500 students were participated in the marathon.
- The Spring festival of the University VASSUNT- 2 K16 was held during 19-22 March, 2016. The festival includes events of Dramatic Society, Art & Photography Club, Audio-visual Club and Music Club.
- The Technofest SAMAVESH-2K16 was held during 12-14 February, 2016. About 30 events were organized including events of EDP Cell, Robotics Society and SAE club.
- A mega Blood Donation campaign by SSG society held on 28th February, 2016. 414 units of blood was collected on the date.
- National Youth Day Celebration held on 12th January, 2016 organised by Yoga Club.
- Vriksha Ganga Abhiyan " programme started from 15th August 2016 to October 2016 by Yoga club.
- Seminar on Mysterious Hand Behind Creation held on 12th November 2016 in the University by Yoga club.
- Seminar on Spiritual Scientist held on 19th November 2016 in the University.
- Seminar on Power of Habits held on 26th November 2016 in the University by Yoga club.
- Anti -Addiction Talk delivered by Dr Ram Chandra Pradhan at Marichi Hall of Residence held on 12th December 2016.
- Mr. Jashit Mohanty, Mukesh Kumar Patro, Anurag Behera presented their paper at India International Science Festival- 2016 held on 7th – 14th December, 2016. The team received 2nd best presentation award.
- Student participated in Annual Zonal NASA Convention dated Oct 1st-4th, 2016 organized by Invertis University, Bareilly. Students won prizes in different spot competitions.
- Student participated in Innovision'16 Tech Fest dated 5th-6th Nov, 2016 organized by NIT Rourkela .Students won prizes in different spot competitions.

FORTH COMING EVENTS

- i) The diamond jubilee celebration of the University will be held during March, 2017.
- ii) The NBA Expert team will visit the University on 31st March – 2nd April, 2017.
- iii) The Council of Architecture Expert team will visit the University during April, 2017.
- iv) The Open Day Ceremony of the University will be held during March, 2017.
- v) QIP Short term course on Distributed Estimation and Control in Networked Systems will be held during 6-11 February, 2017.
- vi) QIP Course on “VLSI Technology and Signal Processing” in the 1st week of April 2017, will be organized by Electronics & TC Engg. Deptt.
- vii) QIP Course on Recent trends in antenna analysis and design” from 15th May to 20th May 2017, will be organized by Electronics & TC Engg. Deptt.
- viii) QIP Short term course on Processing & Characterization of Materials (PC) will be held during 24-29th April, 2017 by the Department of Production Engg.
- ix) QIP Short term course on Recent Developments in Plant Maintenance and Condition Monitoring of Machinery will be held during 10-15 April, 2017 by Department of Mechanical Engineering.
- x) QIP Short term course on Application of Metaheuristic Techniques in smart power system Operation, Control and Protection will be held during 1-6th May, 2017.
