Dr. Babasaheb Ambedkar Marathwada University,
Chh. Sambhajinagar (MS)

Department Brochure

2018-2023

Deen Dayal Upadhyay KAUSHAL Kendra

॥ आत्मनिर्भर भारत की दिशा में ॥

Students from pass out batch-2019, after completing their probation as Graduate Trainee Engineers at Yeshshree Press Comp. Pvt. Ltd., Chh. Sambhajinagar (MS)

निश्चित्वा यः प्रक्रमते नान्तर्वसति कर्मणः ।
अवन्ध्यकालो वश्यात्मा स वै पण्डित उच्यते ॥

Message from Director's Desk

To think beyond the common – constitutes the fabric of the Deen Dayal Upadhyay KAUSHAL Kendra (DDUKK). The Centre is set up with the aim to nurture young minds right from the beginning of a concrete fundamental to a successful career. Today's economic demand is characterized by skilled manpower, modern technology and effective implementation of imparted academic training. It gives me immense pleasure to get the students introduced to this Centre thatwill make them wholly prepared to accept several challenging fields as their career, rather it is our dream to make it happen. Our efforts will be to keep pace with the technological demands of industry and expanding universe of knowledge. It is our prime duty to serve the society by achieving excellence in teaching, learning and training. We are committed to provide the best opportunities in education and overall developments of our students in their pursuit of knowledge. We will untiringly work to provide a conducive atmosphere for talent identification and skill development to enable the target student population to attain hitherto untouched heights in scholastic excellence. Our main motto is to produce high quality manpower capable of catering the needs of the globalized economy. Whole hearted co-operation from all students is expected to make our dreams come true. Best wishes to all students, who will ever remain the prime impetus for us, with the note that they are welcome to enjoy the thrill of the learning in our campus lying right in the lap of natural bounty with a divine ambience. Let us join our hands and stride towards a wonderful tomorrow.

Dr. B. W. Gawali

Senior Professor and Director
Deen Dayal Upadhyay KAUSHAL Kendra

Brief History of the Department

Incepted in 2013, the Centre presently stands as an epitome of skill oriented knowledge disseminator in the state of Maharashtra. Embodied as one of the best performing Deen Dayal Upadhyay KAUSHAL Kendras across 56 such Centers through India, this Institute offers Undergraduate and Post- Graduate programme, Bachelor of Vocation (B. VOC) and Master of Vocation (M.VOC), respectively. As a matter of great significance, Skill based education at the University campus saw a prospective daylight in June-2013, when local industrialists, industry guilds and academia conjointly took an epochal step to start 'Centre for Vocational Education and Training (CVET)' in order to address the demand of skilled manpower by local industries. Chhatrapati Sambhajinagar city is surrounded by and embedded with 05 industrial estates under Maharashtra Industrial Development Corporation (MIDC) and sustainable source of trained manpower has been an ever-concerning issue in this region. Catering to the immediate needs of the region, 'Industrial Automation' and 'Automobile' are the two trades being offered by the Centre. Chhatrapati Sambhajinagar, being a manufacturing hub of automobile ancillaries and pharmaceuticals, these two sectors will never run dry of opportunities. In 2014 University Grants Commission (UGC), New Delhi sanctioned Bachelor of Vocation (B.VOC) program in aforesaid trades to the University. Great efforts were taken by the University to reach to grassroot level of society to make the programme truly inclusive to all walks of society especially for whom a job can change scenario of a family. Such efforts were immediately recognized at national level and UGC sanctioned to incept Deen Dayal Upadhyay KAUSHAL Kendra (DDUKK) in 2015. Since inception, this institute has created great enthusiasm among student and parent fraternity in the region.

Best part of the academic pedagogy of the department lies with continuous consideration of the syllabus for validation of time relevance. The Centre nourishes an extensive network of more than 40 industries to remain academically updated about advances in industrial pertinence. The department has also established a solid framework of training infrastructure that allows students to get job - ready with the needs of an industry. The internship pattern adapted by this department has been proved to be extremely successful in achieving the goal of nearly cent percent placement, thereby changing socio-economic strata of many families from economically marginal background. Graduates of this department are working at par with technical graduates are frequently taking up oversees jobs and assignments.

The Department aims to strengthen the economic backbone of the region by preparing a steady source of self-reliant human resource with the belief in education 'by which one can stand on his/her own feet' through the motto that 'a drop of practice is better than an ocean of theories'. The department looks forward holistically to stand by its motto to provide time relevant skill at affordable cost to all walks of society. Remaining soulfully inclined to the dreams of Sir J. R. D. Tata, it is firmly believed that through creation of job ready human resource, we contribute effectively towards building of a 'Happy Country'.

Vision

To Foster an Academic Environment for providing affordable skill based education and training, in alignment to National Standards, under the fundamental aegis of Accessibility, Equity and Inclusion

Mission

- To continue with our responsive standpoint towards changing occupational demands by continuous augmentation of training expertise and infrastructure through industry-academia cooperative ecosystem
- To structure a concrete mechanism to reach closer to student fraternity to ensure inclusion of the truly needed part of society where affordable and quality skill-education defines the pivot for a socio- economic revolution
- To expand training domains to address challenges of multidisciplinary format of employment and entreprenurial opportunities
- To come up with Open Distance Learning (ODL) models to improve accessibility of skill education and facilitate lifelong learning
- To continuously strive for a cohesive academic atmosphere that aids in gaining cognitive skills through enhanced experiential learning and to come up with strategic formative assessment to address outcome challenges at individual level

Core Values

Follows the core values of department that reflect the department's commitment to providing affordable, skill-based education that aligns with national standards while promoting accessibility, equity, and inclusion in all aspects of its operations.

Accessibility: Commitment to making education accessible to all segments of society, ensuring no one is left behind due to economic or social barriers

Equity: Ensuring fairness and impartiality in educational opportunities, addressing disparities and promoting equal access and outcomes for all students.

Inclusion: Embracing diversity and creating an inclusive environment where every individual feels valued and respected, regardless of background or circumstance.

Quality: Upholding high standards of education and training to ensure that graduates are well-prepared and competitive in the global job market.

Innovation: Embracing innovative approaches in education, such as industry-academia partnerships and open distance learning, to meet evolving demographic demands.

Responsiveness: Being agile and responsive to changes in occupational demands, continuously updating training programs and infrastructure to stay relevant.

Experiential Learning: Prioritizing hands-on learning experiences that enhance cognitive skills and prepare students for real-world challenges.

Continuous Improvement: Committing to ongoing evaluation and enhancement of educational outcomes through strategic assessments and feedback mechanisms.

Academic Programme being offered

Program	Specialization	Intake	Duration	Eligibility
Bachelor of Vocation (B.VOC)	Industrial Automation	30	03 Years	XII Pass/ MCVC/ ITI (Priority to Relevance of Trade)
	Automobile	30	03 Years	
Bachelor of Vocation (B.VOC) (Industry Embedded)	Industrial Automation	50	03 Years	Working Professions with XII Pass/ MCVC/ ITI (Priority to Relevance of Trade
	Automobile	50	03 Years	
Master of Vocation	Industrial Automation	10	02 Years	B.Voc (Industrial Automation)/ B.Sc. (Physics/ Eectronics/ Computer Science)/ B.E or B.Tech (Electronics/ Electronics and Telecommunication/ Instrumentation/ Electrical/ Mechanical/ Mechatronics/ Industrial Automation) from any recognized University/ Institution
	Automobile Technology	10	02 Years	B. Voc or B.Sc. in Automobile/ Production/ Farm Equipment and Machinery/ Vehicle Testing/ Refrigeration and Air conditioning/ Workshop Technology/ Mechanical and its allied/ relevant branches or Four years B.Tech in Automobile/ Production/ Mechatronics/ Robotics and Automation/ Instrumentation/ Mechanical and its allied/relevant branches.

Apart from the regular programme, this department offers short term certificate programme on core and applied domains (PLC, SCADA, Robotics, IOT, CAD, Standard Industrial Practices etc.) time to time/ on demand basis.

Assessment Methods and Exam Reforms

This department fosters practice of formative assessment as it is best efficient method to evaluate students' comprehension, learning needs, and academic progress. It offers immediate feedback, enhanced student engagement, personalized learning, improved learning outcomes, and encourages self-assessment. Formative assessment also reduces test anxiety by lowering the stakes, ensuring all students receive appropriate challenges and support. It also supports a culture of continuous improvement and nourishes a growth mindset among students. Formative assessment/ Continuous Internal Assessments for each **theory course** is conducted in following format –

Module-wise Tests (comprising of 60% of total marks allotted to a course)

Module-wise Tests are conducted in each theory course immediately after completion of teaching with individual module. Every Module-wise Test will be followed by a remedial test. Any student, who has missed to appear for a test can appear for the remedial test. Or if any student wants to improve their performance of main test, will be allowed to appear for remedial test. All questions are framed to evaluate critical applied thinking capability of a student.

Assignment/Mini Project (comprising of 20% of total marks allotted to a course)

This is a group activity and concerned faculty provides assignment/tasks that leads to incubation of critical and creative thinking ability of students. Depending upon contents of a course, the faculty member may assign a mini project to a group of students as well.

Seminar Presentation (comprising of 20% of total marks allotted to a course)

Individual student has to deliver a seminar based on topics covered through course contents or topics related to course content. Evaluation of a seminar is carried out by course faculty member and an external faculty member.

A Semester End Examination (SEE) for a certain / all theory courses will be conducted only for students who will fall short in obtaining passing marks for respective course through the process of formative assessment.

Semester End Practical Examination

All students are provided with a specific task related to the hands on and theory knowledge they have gained through semester. The exams offer open resource practice where, the students are free to refer any resource to complete the task. The questions are critically designed to evaluate problem solving ability of a student.

This Department offers Bilingual Question Papers and students are allowed to write their answer sheets in English/ Hindi/ Marathi

All answer sheets are shown to students to address any grievance then and there, maintaining complete transparency. Departmental committee resolves critical issues raised, if any.

Faculty Details

Dr. Kunal Prasanta Datta

Assistant Professor
Industrial Automation Division

Qualification	M.Sc (Physics) with Electronics Major; Ph.D (Physics)
Research Domain	Functional Nanomaterials, Sensors, Soft Matters, Instrumentation, Low Cost Automation
Total Number of Publications (Peer Reviewed Scholastic Platforms/ Books)	59 (Range of Thomson Reuters Impact Factor of Journal s in which articles have been published :)
Total Citations: SCOPUS/ Google Scholar	368 / 530
h-index: SCOPUS/ Google Scholar	10 / 11
i-10 index:	13
Total Layout of Completed Projects with Name of Agency	Rs. 1,13,18,217/- SEED Division, Department of Science and Technology, Govt. of India SPD, RUSA, Govt. of Maharashtra
Total number of Patents Granted/Published/Submitted	Granted : 06; Published : 12; Submitted : 04

List of Best 05 Publications

- Exercising substituents in porphyrins for real time selective sensing of volatile organic compounds; Sensors and Actuators B (Elsevier); Vol 257, 389-397
- Poly (O-Toluidine) Nanowires based Organic Field Effect Transistors – A Study on Influence of Anionic Size of Dopants and SWNTs as a Dopant; Journal of Physical Chemistry C (ACS), 117, 15414-15420
- Fe Nanoparticles Tailored Poly(N-Methyl Pyrrole) Nanowires Matrix: A CHEMFET Study in perspective of Discrimination among Electron Donating Analytes; Journal of Physics D: Applied Physics (IOP); 48, 195301 (8pp)
- Organic Foeld Effect Transistors: A Predictable Control on Performance Parameters; Journal of Physics D: Applied Physics (IOP); 46, 495310 (7pp)
- Controlled Functionalization of SWNTs for Enhanced Ammonia Sensing – A Comparative Study; Journal of Physics D: Applied Physics (IOP); 45, 355305 (7pp)

Faculty Details

Mr. Gangadhar Waman Bandewad
Assistant Professor
Industrial Automation Division

Qualification	M.E. (Microelectronics Systems) ; Ph.D Electronics Engg. (Pursuing)
Research Domain	Microelectronics, Sensors
Total Number of Publications (Peer Reviewed Scholastic Platforms/ Books)	04
Total Citations: SCOPUS/ Google Scholar	04

List of Best 05 Publications

- Review on Discrimination of Hazardous Gases by Smart Sensing Technology. Artificial Intelligence and Applications, 1(2), 86–97. https://doi.org/10.47852/bonviewAIA3202434
- Large chiro-optical effect in stacked chiral metamaterials. https://doi.org/10.1109/icemelec.2014.7151185
- Design, simulation, and analysis of nanostructures for low power devices. Materials Today: Proceedings, 66, 3534–3538. https://doi.org/10.1016/j.matpr.2022.06.414
- Design and optimization of microheater for smart gas sensor applications. Materials Today: Proceedings, 62, 3314–3319. https://doi.org/10.1016/j.matpr.2022.04.240

Faculty Details

Mr. Vishal D. Ushir
Assistant Professor
Automobile Division

Qualification	M.Tech (Mechanical Engineering); Ph.D (Pursuing)
Research Domain	Machine Design, Alternate Fuels, Finite Element Analysis, Electric Vehicles
Total Number of Publications (Peer Reviewed Scholastic Platforms/ Books)	01
Total Layout of Completed Projects with Name of Agency	Rs. 88,18,217/- SEED Division, Department of Science and Technology, Govt. of India
Total number of Patents Granted/Published/Submitted	Nil

List of Best 05 Publications

- Experimental studies on thermoacoustic engine with gaseous mixtures

Faculty Details

Dr. Amogh Anil Sambare
Assistant Professor
Automobile Division

Qualification	D.M.E, B.E (Mech Engg.), M.Tech (Thermal Engg.), Ph.D. (Mechanical Engg)
Research Domain	Density Functional Theory (DFT), Heat Transfer, Refrigeration and Air Conditioning, Computational Fluid Dynamics (CFD)
Total Number of Publications (Peer Reviewed Scholastic Platforms/ Books)	6
Total Citations: SCOPUS/ Google Scholar	4/7
h-index: SCOPUS/ Google Scholar	2/2
Total Layout of Completed Projects with Name of Agency	Rs. 88,18,217/- SEED Division, Department of Science and Technology, Govt. of India

List of Best 05 Publications

- Adsorption of gas molecules (CO, CO, NO, NO, and CH) on undoped and Ag-doped bismuth ferrite oxide (BFO) by DFT investigation; Journal of Materials Research (Springer International Publishing); Vol 37 (23), 4296-4311
- A DFT investigation on transition metal (Co, Cr, Cu, Mn, Mo and Nb)-doped bismuth ferrite oxide (BiFeO3) for CO gas adsorption; Theoretical Chemistry Accounts (Springer), 142 (61)
- DFT + U +V Investigation on Adsorption of Gas Molecules (CO, SO2, NO, and NO2) on Ni Doped Bismuth Ferrite Oxide (010); Key Engineering Materials; 980, 41-48
- Enhanced gas sensing performance of Ag-Doped BiFeO3 microspheres synthesized via flash auto combustion technology; Current Chemistry Letters; 13 (2), 367-376
- Finite element analysis and design optimization of composite T-joints for enhanced maritime and aerospace applications; Engineering Solid Mechanics; 12 (2), 157-164

Details of Infrastructural Grants

Sr. No.	Year of Sanction	Sanctioning Authority	Scheme	Amount Sanctioned
1	2014-15	University Grants Commission, New Delhi	Bachelor of Vocation (B.VOC)	Rs. 1.67 Cr
2	2015-16	University Grants Commission, New Delhi	Deen Dayal Upadhyay KAUSHAL Kendra	Rs. 4.00 Cr
3	2015-16	University Grants Commission, New Delhi	Community College	Rs. 0.80 Cr

Community Empowerment Grants

Sr. No.	Year of Sanction	Sanctioning Authority	Scheme	Amount Sanctioned
1	2019 - 22	SEED Division, Department of Science and Technology, Govt. of India	Establishment of Science and Technology Hub for Empowerment of SC/ST Population	Rs. 88,18,217/-

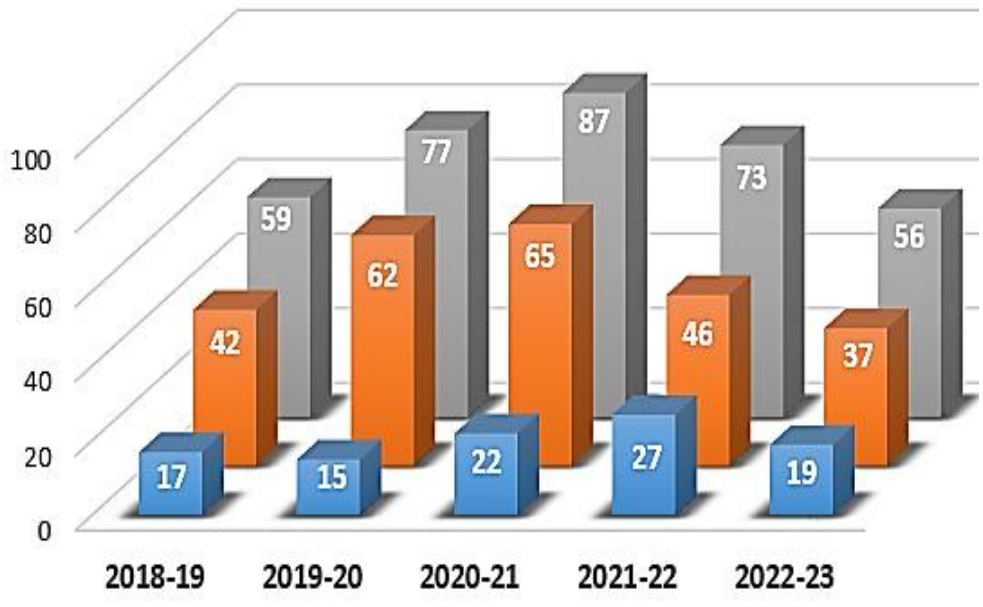
Research Outcome of Department

Total Number of Publications (Peer Reviewed Scholastic Platforms/ Books)	82
Total Citations: SCOPUS/ Google Scholar	372 / 537
h-index: SCOPUS/ Google Scholar	12 / 13
i-10 index:	13
Total Layout of Completed Projects with Name of Agency	Rs. 1,13,18,217/- SEED Division, Department of Science and Technology, Govt. of India; SPD, RUSA, Govt. of Maharashtra
Total number of Patents Granted/Published/Submitted	Granted : 06; Published : 12; Submitted : 04

Student Progression and Placement (2018 -23)

Academic Year	Number of Students Pass out	Number of Students opted for Higher Studies	% of students opted for Higher Studies
2018-19	59	17	28.81
2019-20	77	15	19.48
2020-21	87	22	25.28
2021-22	73	27	36.98
2022-23	56	19	33.92

Academic Year	Number of Student Pass out	Number of Students Placed	% of Students Placed
2018-19	59	42	71.18
2019-20	77	62	80.51
2020-21	87	65	74.71
2021-22	73	46	63.01
2022-23	56	37	66.07



Passed – Placed- Progressed

Extra-Curricular Activities

- Online session during COVID-19 Lockdown Period towards handling mental stress.
- Online session during COVID-19 Lockdown Period to orient students about career opportunities in Skill Sectors.
- Under industry collaboration online training for students to fabricate automatic hand sanitizer dispenser.
- Online session on International Yoga Day.
- Online session (in collaboration with ATAL Incubation Centre) towards sensitization of students with entrepreneurial avenues.
- Students have participation in all AVISHKAR and National Science Day events.
- Essay Writing Competition are organized to commemorate Birth Centenaries of Legendary Personalities.
- Special Lectures are organized on account of National Science day.

Extension Activities

- Short Term Technical Training Program with Siemens PLC and HMI' during December 26 – January 15, 2022.
- Short Term Technical Training program on 'Programmable Logic Controllers' during April 26-May 4, 2022.
- Launched With Industry collaboration, 7 days Certification Program on 'Managerial and Technical Practices in Manufacturing Industries'.
- Intensive Workshop entitled Engineering Career: Eligibility to Suitability' on collaboration with Yashashree Press Comp Pvt. Ltd, Chh. Sambhajinagar.
- Up-skilling of Youth from Chikalthan, Narsingpur and Andhaner villages of Kannad Taluka under DST SEED sanctioned project. 03 micro entrepreneurships, 07 job linkages and 13 job opportunities have been created.
- Science and Technology Van has been developed in house for taking glimpses of technology to rural doorstep.

MOUs and Industry Linkages

TasTAFE, Australia	Aditya Ecotech Green Solutions, Aurangabad	VIRA Robotics, Aurangabad
University of California, Riverside, USA	3A Industrial Automation, Aurangabad	Trisen Automation, Aurangabad
IJ-AAI Corporation, Kyoto, Japan	Shri Sai Cotex, Aurangabad	Desire Automation, Aurangabad
Indo German Tool Room, Aurangabad	Electromates Robotics and Automation, Aurangabad	IASC Sector Skill Council
Narsapur Auto Pvt. Ltd., Aurangabad	Disha International Foundation, Aurangabad	ASDC Sector Skill Council
LUANS Electronics, Aurangabad	Bhagwandas Tyre Remodelling, Aurangabad	3A Automation, Aurangabad
KRISH Automation, Aurangabad	Prescient Automation, Pune	IDEMI, Mumbai
NAC Group of Companies, Aurangabad	Sangram Auto Components, Aurangabad	Argee Automation and Control, Mohali
Niyo Engineers, Pune	Sunrise Automation, Aurangabad	3D Technologies, Mohali
Scientech Technologies, Indore	Ellantra Automation, Aurangabad	Yeshshree Press Comp Pvt. Ltd., Aurangabad

1. Through these Industry Linkages, intensive industry training has been provided to students of final year. Year-wise data follows:

2018-19	2019-20	2020-21	2021-22	2022-23
59	77	87	73	56

2. Industry partners take pivotal role in placement activity of students.
3. Regular training and capability enhancement program for students in collaboration with industries are conducted to inculcate standards, procedures and practices of industry operation among students.
4. Sectors Skill councils have provided ‘Faculty Training Program’.

Quality Initiatives by the Department

Curricula is designed and revised at regular intervals where industry involvement is intertwined.
Curricula is fortified with feedback and input from employers and alumni.
Exhaustive open lab practice and hands on session.
One Year In-Plant Training as a mandatory part of curricula.
Regular training and capability enhancement program for students in collaboration with industries to inculcate standards, procedures and practices of industry operation among students.
State of art technical infrastructure for training impartation.
Community service initiatives through DST SEED division sanctioned project entitled ‘Establishment of Science and Technology Hub for Empowerment of SC/ST Population’. In-house development of Science and Technology Van for this purpose.
Dedicated You Tube channel: IND AUTOMATION@DDUKKDRBAMU, developed for students, where detailed performance of experiments have been uploaded.
Adaptation of formative assessment framework with transparent student satisfaction mechanism. Adaptation of methods to minimize memory based evaluation towards augmentation of critical thinking abilities.
In-house design and development of need based didactic tools.

Prominent Alumni

Following students contribute to the Department in terms of assistance in Placements, Guidance in the preparation of interviews, Online lectures in the core subjects of Industrial Automation and Automobile		
Sr. No	**Name of Student**	**Industry**
1	Ms. Hema N. Malode Operation Automation Engineer	Replus Engitech Pvt. Ltd., Pune
2	Mr. Shivprasad Chokhat Head Field Service Engineer (Southern and Western India)	KHS Machinery Pvt. Ltd., Chennai
3	Ms. Yamuna Pimple Senior PLC Programmer	Affordable Robotics and Automation Pvt. Ltd., Pune
4	Mr. Amardeep Bhalekar Deputy Manager (Plant & Operation)	Lumax Auto Technologies Pvt. Ltd., Chh. Sambhainagar
5	Mr. Saurabh Wagh Project Engineer	Virtuoso Project and Engineers Pvt. Ltd., Pune
6	Mr. Chetan Pawar C.O.O	Robonist Tech Solutions Pvt. Ltd. (Start Up, Chh. Sambahjinagar
7	Mr. Sujay Dhawale Project Engineer (Electrical)	Symbiosis International University, Pune
8	Mr. Nageshwar Ambhorkar Sr. Engineer (Process Automation & Maintenance)	INDO-RAMA Ventures Limited, Nagpur
9	Mr. Prashant Sonwane R & D Engineer (Process; Flowtec)	Endress + Hausser, Chh. Sambhajinagar
10	Mr. Amar Pawar Automation Engineer (IOT)	Shilpin Machine Tools Pvt. Ltd., Chh. Sambhajinagar
11	Mr. Vaibhav More Automation Engineer	Shilpin Machine Tools Pvt. Ltd., Chh. Sambhajinagar
12	Mr. DarshanChatare Senior Project Engineer	Virtuoso Project and Engineers Pvt. Ltd., Pune

Prospective Plan

- To formalize lecture demonstration practice by inculcating simulation based /real time demonstrations during lecture.
- To develop strategic mechanisms to formalize the Continuous / Formative Assessment Pattern
- To work more on practical teaching hours with the students.
- To make academics more engaging through flip classroom (1 module to be conducted by students under supervision of respective course faculty); to ensure student activeness in such practice, the seminar presentation part of the Formative Assessment mechanism can be linked with flip classroom.
- To conduct a parents' meeting for parents of first year students to track behavioural changes in students after admission.
- To conduct a patents' meeting for parents of second year students to orient about the opportunities and challenges of 01 year internship in which their wards have to get engaged from next semester.
- To encourage studfents to get enrolled for SWAYAM / NPTEL based courses for either (I) Global Citizenship Education or (II) Indian Knowledge system.
- To conduct structured industry oriented events.
- Initiation of -
    - 5 year integrated B.VOC + M.VOC program with 01 year industry internship
    - 4 year integrated B.VOC + PG Diploma program with 01 year industry internship
- To explore possibility of horizontal mobility of B.VOC passed out candidates to get admitted to 4th year of B.TECH program.
- To completely formalize the formative method of examination as full-proof model.
- Creation of MCQ Question Bank (in English/ Marathi Language) for courses. Efforts will be taken to formalize examination patters based on MCQ based questions to attain all levels of Bloom's Taxonomy.
- The most crucial bottleneck towards making existing programme in department truly affordable to financially backward section of student fraternity, is to maintain the department in financially self-sustainable manner. Following strategic steps will be taken to address this issue -
- To get permanent status, for teaching and technical staff of the department, who are appointed under posts sanctioned by the University Grants Commission (UGC) sanctioned B.VOC and/or UGC DDUKK scheme. under the aegis of Govt. Of Maharashtra
- To get 'Govt. Granted' status for the department.

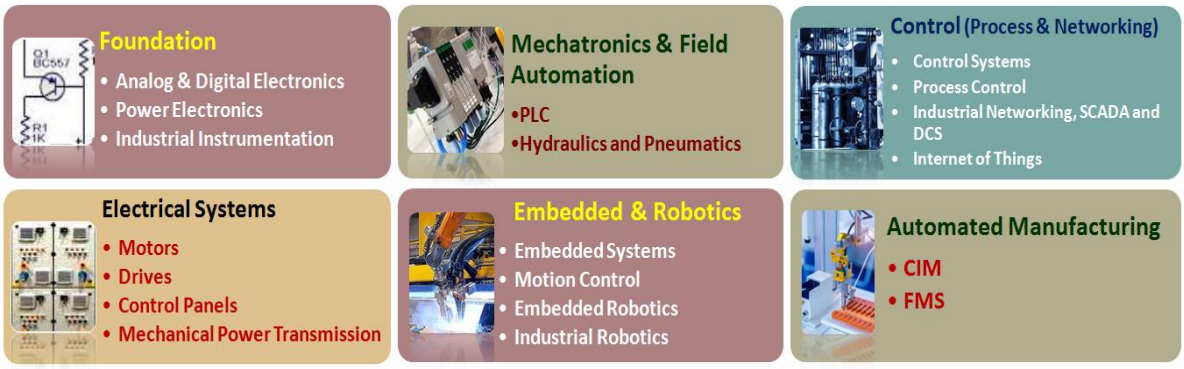
- To explore student sponsorship from industry.
- Looking at low enthusiasm of girl students to get admitted to existing programme, whereas, industries have scope of good career, we will try to make special outreach programme for female students.
- Specific industry sponsorship will be explored for meritorious female candidates admitted to the program.
- Specific short term course, aligned to the need to manufacturing industries, is already designed by the department. It will be explored, if local industry guilds could provide financial assistance for probable subsidization of fee for such courses.
- Efforts will be garnered to 01 Digital/IOT based manufacturing lab to address the next level of challenges in manufacturing industries. In fact, students, who are not trained in this particular domain, will find it hard to get accommodated in manufacturing industries, which the base of local region, in coming years.
- Local industries will be approached for support for laboratory creation/augmentation.
- Complete overhauling/ maintenance/ calibration of existing equipment will be carried out.
- Yearly one brainstorming workshop will be organized to address technical problems will local industries, so that students can take up live issues as their projects.
- Industrial Summer Training for at least 01 week period will be made compulsory for all faculty members and technical staff.
- Focal research area of the department will be decided. Faculty members will be given substantial scope to visit premier organizations whose working/ research is aligned to the potential area of faculty members/department. Submission of at least two research papers and filing of two patents will remain annual objective of research cell of the department.
- A dedicated counselling cell will be incepted to orient students about prerequisites for a career in industries aligned to our training domain.

Infrastructure and Research Facilities

UG/PG Laboratories

Both Industrial Automation and Automobile Divisions have six laboratory conclaves each.

Industrial Automation Laboratory Conclaves



Automobile Laboratory Conclaves

The department has around 348 didactic set ups to impart effective hands on training. Many of the equipments are tailor made (as per design criteria provided by faculty members of the department) to meet specific training needs.

Glimpses of Laboratory Infrastructure

Glimpses of UG/PG Lab infrastructure: (1) Process Control Laboratory, (2) Flexible Manufacturing System, (3) Computer Integrated Manufacturing System, (4) 4 stroke 6 cylinder diesel engine C/S working model, (5) MPFI Test RIG, (6) Two Post Lift, (7) Wheel Alignment Machine, (8) Two Wheeler Chassis Dynamometer

Glimpses of Research Infrastructure

Glimpses of research infrastructure (Clockwise from left): (1) Automation Studio Software, (2) WebAccess - IOT based SCADA, (3) Robo DK software

Glimpses of Research infrastructure: (L) Distributed Control System Station, (M) Multiprocess Control System, (R) Variable Compression Ratio Test Rig

ICT Facilities and Learning Resources

- Lecture Halls / Labs with LCD projector : **03 Nos.**
- Lecture Hall with smart rostrum : **01 No.**
- Document Camera : **01 No.**
- Total Number of Computers : **50 Nos.**
- Lecture Halls, Laboratories, Corridors and part of premise are under CCTV surveillance

Deaprtmental Library

The department has an in-house library with more than 300 titles

A view of departmental library

Life at DDU KAUSHAL Kendra

Director,

Deen Dayal Upadhyay KAUSHAL Kendra,
Dr. Babasaheb Ambedkar Marathwada University,
Chhatrapati Sambhajinagar (MS) – 431004
Contact: director.ddukk@bamu.ac.in
Website: http://www.bamu.ac.in/ddukk/Home.aspx