



BHARTIYA SKILL
DEVELOPMENT UNIVERSITY

FACULTY OF ELECTRICAL SKILLS



Welcome to BSDU, a pioneering experiment in Indian higher education, especially in skill development. Modelled on the successful Swiss Dual System, BSDU fosters a dynamic synergy between academia, industry, and is committed to hands-on learning.

The University has established itself as a bold and innovative institution, pioneering the kind of skill education India's New Education Policy has now recommended for all higher education institutions in India. In this sense, BSDU represents the cutting edge of not just Indian, but global vocational education.

Once again, I welcome you all to explore our university and join us as we transform the landscape of skills-based education.

DR. VIVEK BHANDARI

President

Bhartiya Skill Development University



'BSDU REPRESENTS THE
CUTTING EDGE OF NOT
JUST INDIAN, BUT GLOBAL
VOCATIONAL EDUCATION'



Welcome to the Faculty of Electrical Skills!
Renewable energy is the key to a sustainable future, and our Faculty leads in research, education, and innovation in this crucial field. Our B.Voc program in Renewable Energy Technology offers comprehensive education, hands-on learning, interdisciplinary collaboration, and real-world projects to prepare students for successful careers in the solar energy sector.
Join us and give wings to your dreams.

DR. RITU TAK

Dean, Faculty of Electrical Skills
Bhartiya Skill Development University



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A black and white photograph of a person's hands holding a multimeter. The person is wearing a watch on their left wrist. The multimeter has a circular scale with a needle and several terminals on the right side labeled '60V', '10V', and '100mV'. The background shows a laboratory environment with various equipment and cables.

FACULTY OF ELECTRICAL SKILLS

Entry into the B.Voc program offers you an opportunity to enter into an industry-integrated program to become a Solar Installer. It is an industry-integrated program with a commitment to preparing the students for Industrial Revolution 4.0.

The curriculum is based on the **Swiss Dual System**, which emphasizes practical training to ensure that graduates are prepared for the demands of the industry. The Faculty has well-equipped laboratories, a well-stocked library, competent and experienced staff; and has expert trainers from Switzerland as visiting faculty.

The Program is UGC approved and has industry relevant curriculum that is updated regularly to reflect the latest advancements in the field.

SWISS DUAL SYSTEM

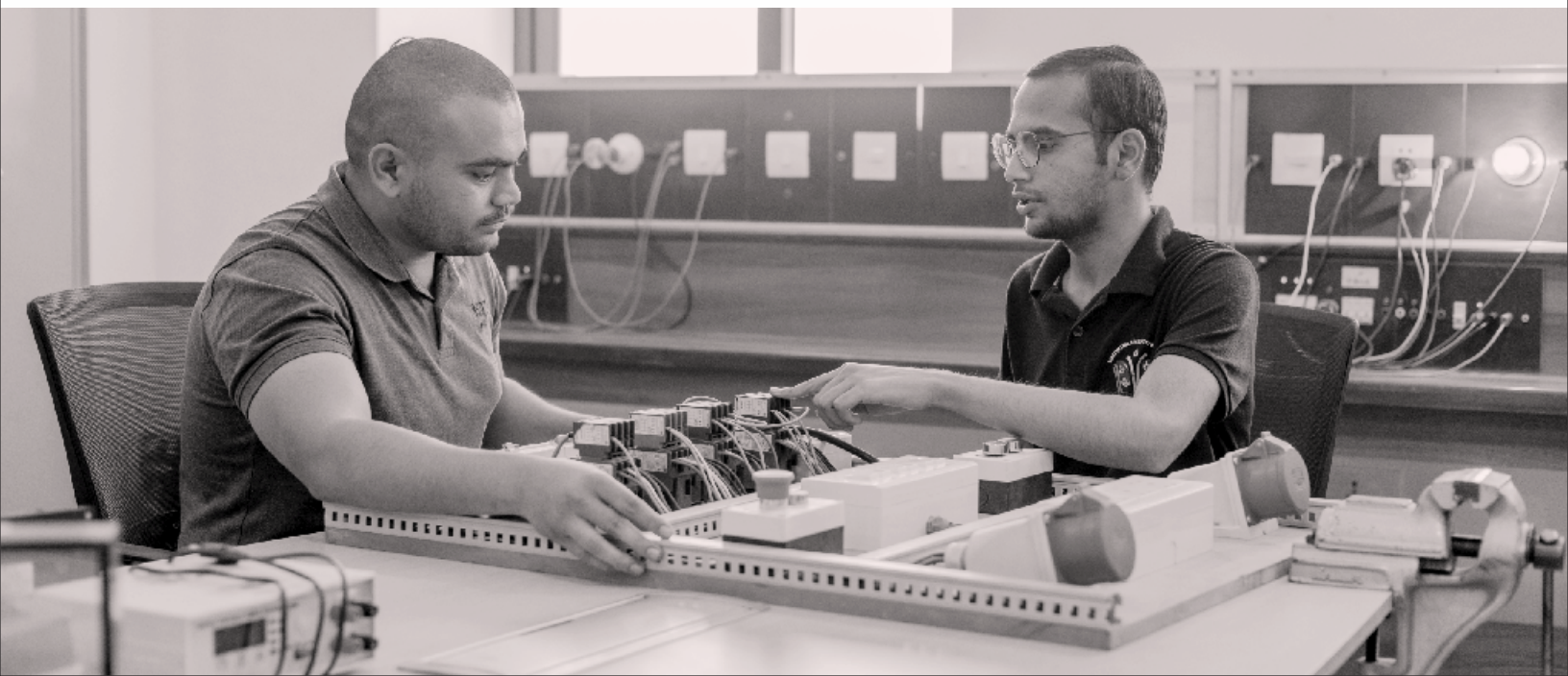
The Swiss Dual System of Vocational Education is a highly respected model globally renowned for its effectiveness in preparing individuals for successful careers in various industries. It combines practical, on-the-job training, with classroom-based learning thereby offering a unique blend of theoretical knowledge and hands-on experience.

- **Dual Structure:** The education system is structured around two main components: vocational school education and company-based training. Students spend part of their time in vocational schools, where they acquire theoretical and practical knowledge relevant to their chosen profession and the remaining time is spent in companies, where they undergo practical training under the guidance of experienced professionals.
- **Partnership with Industry:** Swiss vocational education programs are developed and implemented in close collaboration with industry partners and industry associations. This ensures that the curriculum is aligned with the current needs and requirements of the market.

- **Preparation for Life:** An important component of the curriculum includes education in life skills and critical thinking. These skills prepare students not only for the workplace, but also their long-term growth and success.

HOW BSDU IS BETTER THAN ANY OTHER SKILL TRAINING COURSE

- Stipend during six-month industry internship in 2nd, 4th, and 6th semesters
- Training by experts/visiting faculties from Switzerland
- Multiple entry & exit system
- Hostel facility available separately for boys and girls
- Merit-based Scholarships & Fee Concessions to eligible students



JOB ROLES AND WORKPLACE TRAINING

First Year

During the first year of workplace training, the student gains basic knowledge about the manufacturing of solar panel for the job role of Module Assembly Technician.

Second Year

In the second year of workplace training, the student can reach upto higher roles such as Solar Panel Installation Technician, Solar PV Technician and Solar Energy Technician.

Third Year

In the final year, the student can reach upto the roles equivalent to Solar Installer, Solar PV System Installer, Senior Solar Technician and Solar Project Supervisor.



WHY B.VOC IN RENEWABLE ENERGY TECHNOLOGY SKILLS

B.Voc in Renewable Energy Technology Skills offers a unique blend of theoretical knowledge and practical training, preparing students for a high-tech work environment with long-term job security, competitive salaries, and benefits.

- **Embracing Innovation in the Solar Sector**
The solar industry is a dynamic field that is constantly evolving, offering individuals the chance to engage in innovation and technological advancements through this program in Renewable Energy Technology (RET).
- **Expanding Opportunities in the Solar Industry**
The solar industry is experiencing rapid growth driven by the increasing demand for renewable energy sources and the global

emphasis on sustainability. This expansion not only addresses the need for cleaner energy but also creates numerous job opportunities for individuals looking to enter this promising field.

- **Specialized Skills for a Sustainable Future**
Through hands-on training in photovoltaic (PV) system design, installation, and maintenance, students develop proficiency in managing the entire life cycle of solar projects, preparing them for successful careers in this growing sector.
- **Bridging Theory and Practice**
The degree program, complemented by a hands-on training component, ensures that theoretical knowledge is directly applicable to real-world situations.



KEY COMPETENCIES

The program at the Faculty of Electrical Skills is built on a comprehensive framework that covers all the areas of competencies needed to become a successful professional in the solar industry. For each area of competence individual competencies are defined which develop holistic skills like:



■ **Emphasis on Technical Abilities**

The Program lays a strong emphasis on technical abilities related to solar energy, including in-depth understanding of solar panels, inverters, batteries, and other essential components. Through hands-on training with industry-standard equipment, students gain proficiency in the practical application of solar technologies, ensuring they are prepared to excel in the field.

■ **Software Training**

Recognizing the importance of digital tools in the solar industry, the Program provides comprehensive instruction on industry-leading software used for designing and simulating solar systems.

■ **Regulatory Knowledge**

the program develops a comprehensive understanding in students about the regulatory issues of the solar energy business and also the local building requirements, permitting procedures, and safety regulations, empowering them to

operate within the legal and compliance frameworks of the industry.

■ **Installation Methods**

The curriculum covers a wide range of installation methods, including understanding various roof types, mounting technologies, and optimal techniques for securing solar panels, enabling students to deliver high-quality installations.

■ **Maintenance and Troubleshooting**

The program equips students with the necessary knowledge and skills to conduct regular maintenance and diagnose common issues, ensuring they can provide ongoing support and optimization for solar systems.

■ **Communication and Teamwork**

The Program enhances communication and teamwork abilities to effectively operate in the solar energy industry. This involves the capacity to engage with clients, cooperate with team members, and convey technical knowledge effectively.



INTERNSHIPS AND INDUSTRY PROJECTS

To bridge the gap between theory and practice, the program offers internships or practical projects in partnership with solar energy firms. This hands-on experience gained during internship equips students to implement them in real-life situations.

The modules designed according to the requirements of the solar energy sector and implementing the comprehensive training strategies will equip students with advanced skills

INFRASTRUCTURE AND EQUIPMENT

The Faculty has well-equipped laboratories with the latest equipment and apparatus as per job roles to facilitate students with the opportunity to undertake hands-on practical experiments with great precision and high accuracy.

- Renewable Energy Technology Lab
- Solar Installation Lab
- Maintenance and Safety Lab
- Electrical Workshop
- Electrical House Wiring Lab

FUTURE PROSPECTS

The future prospects for professionals in the Solar industry has been consistently rising due to many variables that emphasize the expansion and significance of the solar energy sector. The solar sector has seen rapid expansion on a worldwide scale. There is a growing trend among governments, corporations, and people to use solar power due to its sustainability and cost-effectiveness, leading to a higher need for competent specialists in the field.

The key skills taught in the program culminate into meaningful professions in the Solar industry. Graduates are prepared for careers as:

- Module Assembly Technician
- Solar Panel Installation Technician
- Solar PV Technician

- Solar Energy Technician
- Solar Installer
- Solar PV System Installer
- Senior Solar Technician
- Solar Project Supervisor

The Bachelor of Vocation (B.Voc) in **Renewable Energy Technology** not only prepares students for a successful career in the industry but also provides a unique opportunity to become Job providers by becoming entrepreneurs and starting-up ventures in this field, creating innovative solutions and products that meet the growing demands of the industry.

B. Voc being a Graduation Degree Program, further facilitates students to pursue higher studies such as B. Tech /M.Voc./M.Tech in Renewable Energy.



B.VOC IN RENEWABLE ENERGY TECHNOLOGY

DURATION

3 Years

ELIGIBILITY CRITERIA

- 10+2 in any stream, or
- 2 years of ITI after 10th, or
- Polytechnic Diploma holders are eligible for lateral entry admission

SELECTION PROCEDURE

Admission will be through an Entrance Exam followed by a personal interview.





MODULAR STRUCTURE, AND ENTRY & EXIT OPTIONS

All B.Voc programs are structured in a modular format, offering various entry and exit points at Certificate, Diploma, Advanced Diploma, and levels. Each of the six semesters is designed to carry 30 credits, culminating in a total of 180 credits upon completion of the B.Voc program.

This modular approach provides students with the flexibility to progress through the program at their own pace and choose the level of qualification that best suits their academic and career aspirations.

Semester	Duration	Exit	Location	Credits (Cumulative)	Award
I	6 Months	6 Months	BSDU	30	Certificate
II	6 Months	1 Year	Industry Workplace	60	Diploma
III	6 Months	1.5 Years	BSDU	90	----
IV	6 Months	2 Years	Industry Workplace	120	Advanced Diploma
V	6 Month	2.5 Years	BSDU	150	----
VI	6 Months	3 Years	Industry Workplace	180	B.Voc

ADMISSION PROCESS

- Applications in the prescribed format for undergraduate programs (B.Voc) are invited from eligible candidates.
- After reviewing the applications, selected candidates are invited for the BSDU Common Admission Test 2024.
- Qualified candidates from the entrance test will appear before the interview panel for personal interviews.
- After compiling all the assessment weightage, a merit list of successful candidates is prepared and notified to the candidates.
- All successful candidates are then called for counseling sessions, document verification, and fee payment as per the notified schedule to complete the admission modalities.

ADMISSION CLOSES ON

15th May, 2024
(Round-1)

18th June, 2024
(Round-2)

22nd July, 2024
(Round-3)



FEE STRUCTURE FOR B.VOC (3-YEAR PROGRAM)

Courses	I*/III/V Semester @ BSDU Campus	II/IV/VI Semester @ Industry Workplace Training	Total Yearly Fee for the Program
Renewable Energy Technology Skills	Rs. 50,000	Rs. 10,000	Rs. 60,000

*For all courses, an additional fee of Rs. 6,000 will be collected in the 1st semester. This includes a Rs. 1,000 registration fee and a Rs. 5,000 caution money deposit. The caution money is refundable upon completion of the B.Voc program.

Fee to be deposited within seven days of receiving provisional admission letter.



COURSE STRUCTURE

Semester 1	Semester 3
<ul style="list-style-type: none"> ■ Applied Mathematics ■ Basic Electrical Engineering ■ Electronics Engineering ■ Measurement ■ Renewable Energy Technology ■ Solar Energy Technology I ■ Solar Energy Technology II ■ Occupational Safety ■ Basic of Electrical Installations- I ■ Basic of Electrical Installations-II ■ Work Preparation and Documentation I ■ Solar PV Module Assembly Skills (Branch Course-I) ■ Open Elective <p>General Education</p> <ul style="list-style-type: none"> ■ New Phase of Life ■ Dealing with Money ■ Partnership and Relationships ■ Labour Laws and Rights 	<ul style="list-style-type: none"> ■ Electrical Engineering ■ Electronic Components of Solar PV System ■ Photovoltaic assembly and Installation I ■ Photovoltaic assembly and Installation II ■ Electrical Installations-I ■ Electrical Installations-II ■ Work Preparation and Documentation II ■ Maintenance and Cleaning ■ Dismasting, Disposal and Recycling I ■ Minor Project PV Solar ■ Solar PV system Installation Skills-I (Branch Course-II) ■ Open Elective <p>General Education</p> <ul style="list-style-type: none"> ■ Health and Well being ■ Education and Learning ■ Media and Communication ■ Cultural Diversity and Inclusion
Semester 2	Semester 4
Workplace Training I	Workplace Training II

Semester 5

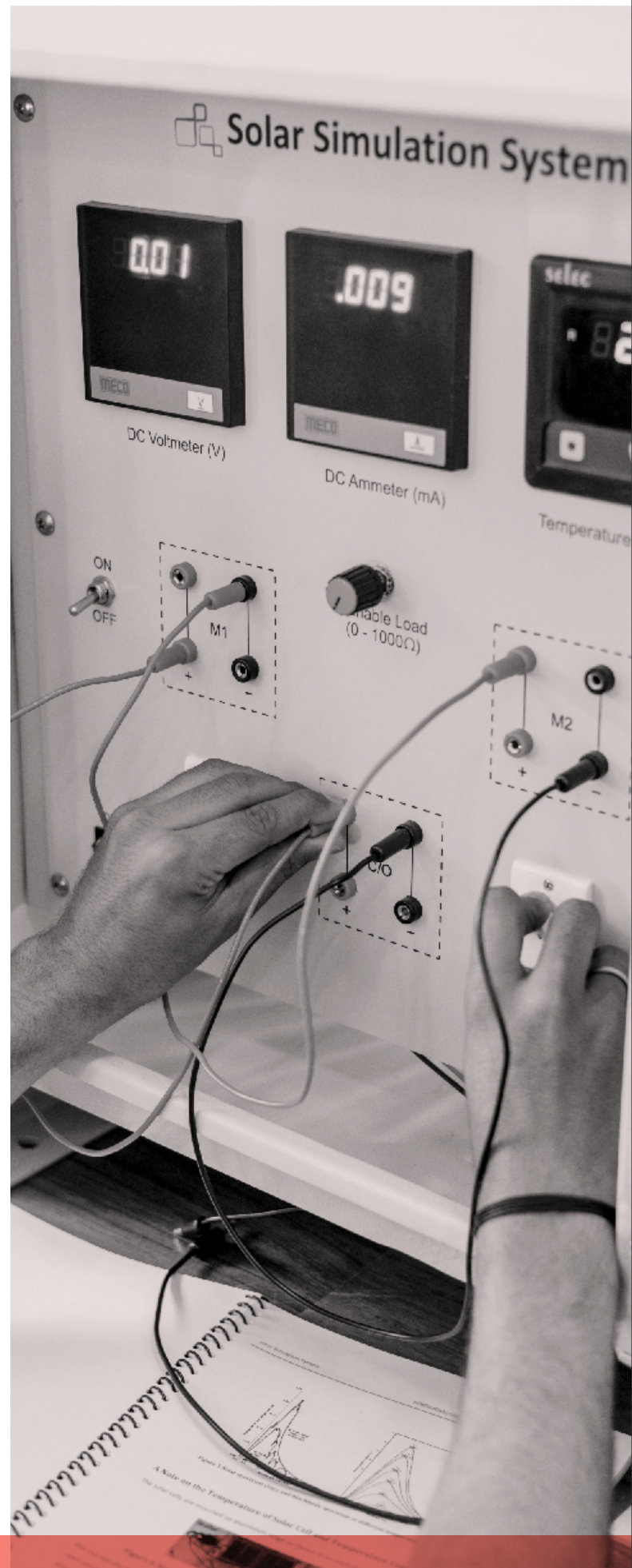
- Maintenance and Safety of PV-Systems
- Photovoltaic Assembly and Installation III
- Photovoltaic Assembly and Installation IV
- Testing and Measurement of Solar PV systems
- Storage and Grid Connection
- Solar PV Application
- Solar PV Project Preparation and Documentation I
- Solar PV Project Preparation and Documentation II
- Dismantling, Disposal and Recycling II
- Major Project
- Solar PV system Installation Skills-II (Branch Course-III)
- Open Elective

General Education

- Environment and Sustainability
- Problem Solving Through Logical Reasoning
- Global Challenges
- Visions of the Future and Responsibility

Semester 6

Workplace Training III



LIFE @ BSDU



THE CAMPUS

BSDU, Jaipur is strategically situated at Mahindra World City, a multiproduct Special Economic Zone based on the concept of an 'Integrated Business City', that is home to prestigious firms like JCB, Mahindra, Infosys, ICICI Bank, RS India, TTK Healthcare, and Ball Corporation. It is located at just 45 min drive from both Jaipur International Airport and Railway Station.



SPORTS

BSDU believes in building an all-round personality including physical fitness for its students. It provides adequate outdoor and indoor sports facilities. These facilities include well-maintained Volleyball and Football grounds and carom, soccer, chess, table tennis, etc.





HOSTEL

BSDU offers a hostel facility separately for boys and girls. It is a home away from home, equipped with indoor games facilities, common rooms, and a mess. Hot water is provided during winters. Twenty-four-hour water and electricity supply is ensured. Strict security measures are taken to ensure safety of the students. The hostels have a resident warden. The Mess facility has high-quality air-cooled dining room serving four meals every day.

Hostel Fee

- Rs. 36,600 per semester for Boarding & Lodging.
- Hostel Charges include both Hostel Stay (Non-AC) and Mess/Dining charges.
- Electricity will be charged as per actual consumption.
- This Fee Structure is valid for the Academic Year 2024-25.





CENTRAL LIBRARY

Central Library holds a hybrid collection of printed as well as electronic resources which include books, journals, databases, audiovisual aids, CDs/DVDs, e-books, e-journals, e-question papers, etc. Currently, it has a collection of 18000 books, 900 CD/DVDs, Wall Chart in 13 Trades, Transparency Sheets in 18 Trades, DELNET Membership, EBSCO Engineering Database. Other Infrastructure includes DELNET, KOHA, DSpace software, and NPTEL Videos.





DEPARTMENT OF WORKPLACE TRAINING

The Department of Workplace Training & Placement (DWTP) at Bhartiya Skill Development University (BSDU) connects students with recruiters, ensuring a match between their mutual aspirations. BSDU's curriculum is designed to prepare students for successful careers with reputable organizations. The University enhances students' professional skills through various activities and events, helping them excel in their chosen fields.

DWTP organizes year-round activities to prepare students for employment, with regular visits from reputed organizations for compulsory internships across all programs. The department maintains strong relationships with these organizations, ensuring continuous opportunities for students. DWTP also provides training in aptitude tests, group discussions, resume preparation, and interviews, ensuring students are equipped with both technical knowledge and soft skills to meet industry expectations.



SCHOLARSHIPS & FEE CONCESSION

BSDU is committed to making its world-class education accessible & affordable for students from all walks of life. To promote equitable and inclusive skill education in line with the NEP 2020, the following scholarships and fee concessions are offered to students.

- Tuition fee Concession for:
 - Girls and Transgender
 - Defense Personnel
 - Socio-cultural identities
 - Differently-abled students
 - Economically weaker Identities
- Academic Scholarship

OUR RECRUITERS



SUCCESS STORIES

Student Name	Year of Passing	Salary/ Month	Name of Company
Ruchika Gupta	2021	Rs. 55,000	O2 Power Pvt. Ltd., Gurugram
Amit Kr. Pandey	2023	Rs. 62,000	Solarium Green Energy Pvt. Ltd., Ahmedabad
Dinesh Mundotiya,	2023	Rs. 22,000	Renew Power, Jaipur
Deepak Kumawat,	2023	Rs. 22,000	Renew Power, Jaipur
Narendra Singh Khangarot	2023	Rs. 22,000	Genus Innovation Pvt. Ltd., Jaipur

RECOGNITIONS

- The establishment of BSDU, Jaipur is recognized and approved by the State Government. The University has been incorporated by the Government of Rajasthan through legislation of Bhartiya Skill Development University, Jaipur Act 2017(Act No. 3 of 2017) and was notified vide Notification No. F.2(4) Vidhi/2017 dated 30th March 2017 in the Rajasthan Gazette.
- Recognized by the University Grants Commission (UGC)
- All B.Voc and M.Voc courses of Bhartiya Skill Development University are approved aligned with the National Skill Qualifications Framework (NSQF)
- Bhartiya Skill Development University is a member of the Association of Indian Universities.

ADMISSION QUERIES

admissions@ruj-bsdu.in | +91 9116611131



**BHARTIYA SKILL
DEVELOPMENT UNIVERSITY**



**RAJENDRA AND URSULA JOSHI
CHARITABLE TRUST**

CAMPUS

BHARTIYA SKILL DEVELOPMENT UNIVERSITY
Plot 005/001-002, DTA Mahindra World City,
Ajmer Road, Jaipur, Rajasthan

Incorporated through Rajasthan State Legislature Act No. 3 of 2017.

UGC approved establishment under Section 2(f) of the
UGC Act 1956 dated 10.11.2020.



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