

Report of Energy Efficiency Services for Industry

(Energy efficiency assessments, workshops, research on renewable energy options)

The University actively collaborates with organisations in the local energy sector to enhance experiential learning, industry exposure, and technical competency among students, while also supporting the industry through workforce development, applied research, and access to emerging talent. These engagements create a mutually beneficial ecosystem—students gain practical skills aligned with industry needs, and companies benefit from fresh perspectives, collaborative problem-solving, and opportunities to train and identify future professionals.

As part of these efforts, the University organised a Two-Day National Level Workshop on “Next Generation Electrical Engineering Using Hardware in Loop–Real Time Simulation” in collaboration with Typhoon HIL–Quarbz Info Systems on 28th and 29th February 2024. The program exposed participants to advanced real-time simulation tools used extensively in the power and energy industry, especially in renewable integration and smart grid systems.

Another significant initiative was the Two-Day Workshop on “Industry 4.0 – Internet of Things” held on 14–15 February and 16–17 February 2024. This workshop focused on digital transformation, automation, and IoT applications in the energy and industrial sectors.

To strengthen industry–academia dialogue, the University conducted a Guest Talk on “Gas Insulated Substations” on 13th March 2024, offering insights into modern substation technologies and operational challenges in power transmission networks.

Students also went on an Industrial Visit to Power Grid Corporation of India Limited (PGCIL), Hyderabad, on 6th January 2024, gaining exposure to large-scale power transmission infrastructure and grid management operations.

In July 2024, the University further expanded its industry-linked learning initiatives. On 12th July 2024, an Expert Talk on “Electrical Vehicle Technology” was organised at EV Retron Energies India Pvt. Ltd., Hyderabad, where 101 participants explored advancements in EV design, charging systems, and the evolving clean mobility ecosystem. Additionally, on 6th July 2024, 121 students visited the 6.6 MWP Solar Power Plant at Infosys, Pocharam, where they learned about solar plant operations, energy generation processes, and on-ground renewable energy management.

Workshops Conducted

#	Name of Event	Date of the Event
1	Two-Day national level workshop on “Next Generation Electrical Engineering Using Hardware in Loop-Real Time Simulation” in collaboration with Typhoon HIL-Quarbz Info Systems.	28 th and 29 th February, 2024.
2	Two-Day workshop on “Industry 4.0-Internet of Things”	14 th -15 th Feb., & 16 th and 17 th February, 2024.

Expert Talk

#	Name of Event	Date of the Event
1	An Expert Talk on “Electrical Vehicle Technology” at EV Retron Energies India Pvt. Ltd., Hyderabad	12 th July 2024
2	Guest talk on “Gas Insulated Substations” at Anurag University	13 th March 2024

Industrial Visits

#	Name of Event	Date of the Event
1	Industrial Visit to Power Grid Corporation of India Limited (PGCIL), Hyderabad	6 th January 2024
2	6.6 MWP Solar Power Plant at Infosys, Pocharam	6 th July 2024

MoUs with Industry

The university has valid MoUs with the following 2 energy companies:

1. Accord Power Conversion Pvt. Ltd: The partnership with APCP focuses on developing high-quality technical manpower in areas such as industrial automation, product development, technological research, and engineering innovation.
2. Eride Industries: The MoU with Eride Industries—an electric mobility and advanced technology company—focuses on skill development, student training, and joint projects in emerging areas of sustainable transportation.

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Event Name: Expert talk on “Electrical Vehicle Technology”

Date: 12-07-2024

Time: 11:00 A.M to 12:45 P.M

Venue: EV Retron Energies India Pvt Ltd, Hyderabad

No. of Participants: 101

Summary report on the event:

The theme behind the expert talk is for the awareness of Electric Vehicle Technology

About 101 students of IV Year, on a study of Electric Vehicle Technology the expert talk is conducted on behalf of HOD on 12th July 2024, 11:00 am to 12:45pm. In this session we have learnt 5 types of vehicle Technology, followed as 1.Engine 2.Transmission 3.Braking 4.Suspension 5.Electrical or battery system.

These components work together to propel the vehicle forward, the engine is the most important component of an electric vehicle or an automobile because it provides a power to move other components. The transmission aids in the transmission of power from the engine to the wheels, the suspension system contributes to a smooth and comfortable ride. When necessary, the braking system assists in stopping the vehicle.

Integration of solar energy into industrial grid, based upon the different case study's and the data from the IOT sensors is collected and the power consumption of load is quantitated and based upon it the solar panels



are integrated into the grid. The in charge of the Electric Vehicle Technology explained in detail about it. It was indeed a successful expert talk completed for which we express our sincere thanks to our management, HOD of EEE department, Dr. T Anil Kumar.



Resource person felicitated with a cheque by Staff of Dept. EEE



DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Event Name: Industrial Visit to “6.6 MWP Solar Power Plant”

Date: 06-07-2024

Time: 9:30 A.M to 3:30 P.M

Venue: Infosys , Pocharam, Hyderabad

No. of Participants: 121

Summary report on the event:

Field visit arranged for III year EEE students at 6.6 MWP Solar Power Plant Infosys SEZ Pocharam, Hyderabad Telangana

The theme behind the field visit is for the awareness of Solar Power Plant, their technology, design consideration and performance monitoring, their importance, need, advantages, disadvantages, diagnostics and servicing. etc.,

About 121 students of III Year, on a practical study tour with prior permission of the authorities concerned, went to Solar Power Plant with a capacity of 4.0175MW located at Pocharam, Hyderabad, Telangana on 06th July ,2024 around 09:30 AM. The total Solar Plant consists of 12960 panels (each panel of 310W). These panels are divided into 648 tables X 20 PV modules, of which 162 tables are connected to 1 inverter and also likewise 7 string monitoring boxes are connected to 1 inverter. So total 4 inverters are available. The no load DC voltage is 800V and during load conditions, it is around 550V to 600V. This available amount of DC is converted into 380V 3-phase AC using inverter. This 380V AC is step up to 33KV and is evacuated through substation. The in-charge of the solar power plant and our faculty members viz. K.Srinivas, M.Lalu and G.Vasantha explained in detail about the performance of the power plant such as its design, maintenance, power generation and its conversion, SCADA monitoring and the transmission of generated power to the GRID, etc., It was indeed a very successful tour and students thoroughly understood its usage in detail.

After a brief break at the plant, we thanked the managing authorities and took leave from them around 03:30 PM that day. It was indeed a successful visit for which we express our sincere thanks to our management, HOD of EEE department, Dr. T Anil Kumar.



Field visit to 6.6 MWP Solar Power Plant Infosys SEZ Pocharam, Hyderabad



Staff and the students with the Resource persons at the event



Industrial Visit to Power Grid Corporation of India Limited (PGCIL), Hyderabad on 6th January 2024

MoUs with Industry

MEMORANDUM OF UNDERSTANDING

BETWEEN

ANURAG UNIVERSITY HYDERABAD

AND

ACCORD POWER CONVERSION Pvt Ltd
HYDERABAD

FOR
INTRENSHIPS AND PROJECTS



ACCORD POWER
CONVERSION PVT LTD

Sameer Jaiswal
REGISTRAR
ANURAG UNIVERSITY
Venkatapur (V), Ghatkesar (M),
Medchal (Dist).

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PREAMBLE

Whereas, ANURAG UNIVERSITY HYDERABAD (AUH) at its various engineering and sciences departments is charged with responsibility of training technical and scientific manpower in various front-line areas of importance for the Nation and is also contributing to the rapidly growing scientific and technological knowledge and professional excellence in Science & Technology by undertaking industrial & applied research and consultancy.

WHEREAS, ACCORD POWER CONVERSION Pvt Ltd (APCP) is engaged in Multidisciplinary activities of Technical Consultancy, Science and Technological Research, Product Development, International Journal, Industrial Automation.

WHEREAS, both ANURAG UNIVERSITY HYDERABAD and APCP, now

- Recognizing the importance of Research & Development in the areas of imparting industrial training to the engineering/technology/science.
- Appreciating the need for creation of large reservoir of highly qualified manpower in all fields related to Science and Technological Research, Product Development, International Journal and Industrial Automation.
- Desiring to club their efforts by pooling their expertise and resources.
- Desiring to establish long term relationship to work on DST, DSIR and Funded Projects.

INTEND to form a nucleus for promoting excellent quality manpower in the fields of engineering, technology and sciences with special emphasis on Science and Technological Research, Product Development, International Journal and Industrial Automation.

NOW, THEREFORE, in consideration of the mutual promises made herein and of good and valuable consideration, the receipt and sufficiency of which both ANURAG UNIVERSITY HYDERABAD and APCP hereby acknowledge, ANURAG UNIVERSITY HYDERABAD and APCP hereby agree to sign a Memorandum of Understanding (MoU).

ARTICLE – I : SCOPE OF THE MoU

Sameer Fatima
5/1/21
REGISTRAR
ANURAG UNIVERSITY
Venkatapur (V), Ghatkesar (M),
Medchal (Dist).

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This MoU details the modalities and general conditions regarding collaboration between AUH and APCP for enhancing, within the country, the availability of highly qualified manpower in the areas of Science and Technological Research, Product Development, International Journal and Industrial Automation without any prejudice to prevailing rules and regulations in AUH and APCP without any disregard to any mechanism evolved and approved by the competent authorities under Govt. of India in so far as such mechanism applies to AUH and APCP. The areas of cooperation can be extended through mutual consent.

ARTICLE – II : SCOPE AND TERMS OF INTERACTIONS

Both AUH and APCP shall encourage interactions between the Students & Staff and Engineers, of both the organizations through the following arrangements:

- a) Practical training of AUH students at APCP and AUH in the form of One-full Semester Internship at APCP and clients;
- b) Joint guidance of student projects/thesis in the areas of Science and Technological Research, Product Development, International Journal and Industrial Automation and other areas of national interest at AUH by APCP on mutually agreeable terms.
- c) APCP may depute its personnel as visiting faculty at AUH to supplement the teaching of any of the regular Course or specialized topics. Further, AUH may request APCP to design and teach a Course or Courses which it deems fit to enhance quality and performance of its Students. Such Courses maybe run at any mutually convenient premises.
- d) APCP may request AUH to design and teach a Course or Courses which it deems fit to enhance quality and performance of its employees. Such Courses maybe run at any mutually convenient premises.
- e) APCP personnel, as well as research scholars, may also be allowed to enroll for their M.Tech. at AUH, subject to availability of seats, research facilities and subject to their fulfilling eligibility criteria and all other academic regulations of AUH.
- f) APCP may seek assistance/guidance of AUH HoDs, Internships in product/process modification, modernization, trouble shooting, etc.
- g) Would allow the industrial visits of students for half/full day to provide them with an exposure to various equipment, instrument, etc.
- h) APCP may showcase its business activities at the Seminar/Workshop/Conference, etc. at AUH that will be conducted time-to-time.
- i) APCP may avail library, Internet, computational facilities at AUH.
- j) The students will carry out part of their MTech./BTech. project at AUH and APCP depending on the nature of the work as per rules of the respective institute depending on facilities and requirements.
- k) There will be no restriction on the contents of the thesis and on publication of results of the thesis, subject to the condition that no Intellectual Property Rights can be secured for any part of the work which will be decided with mutual consent.

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- l) Both APCP and AUH will be free to independently carry out follow-up research on the thesis work conducted under this scheme.
- m) If the outcome of a project related to product development, process technology and design etc. which involves matter of secrecy and concern with security of the State and the Country, the same will not be allowed for publication/printing in any form such as Electronically/verbal, etc. If the outcome of a project results into an intellectual property, for which rights can be secured, it will be decided on case-to-case basis. Similarly, sharing of expenditure in securing such rights and income accrued through royalty etc by the parties under the law will be decided on case- to-case basis after mutual consultation.

ARTICLE-III : SHARING OF FACILITIES

- a) APCP shall extend its facilities for AUH students towards the smooth conduct of Internships and Projects.
- b) AUH and APCP make provisions to share their respective important R&D facilities in order to promote academic and research interaction in the areas of cooperation.
- c) AUH and APCP permits the sharing software and other materials and components developed in-house in the areas of cooperation, if permissible within the rules governing the two institutions. However, responsibility for safety of software and other materials during the exchange will rest on respective Head of academic department/section.
- d) AUH and APCP provide access to the library facilities to, members of faculty and students as per the prevailing rules and norms in the respective institutes.

ARTICLE – IV : CO-ORDINATION OF THE PROGRAMME INCLUDING FINANCIAL ARRANGEMENTS

- a) The collaborative program between AUH and APCP coordinate by a coordination committee appointed by local head of both the Institutions.
- b) Financial arrangements for each specific collaboration will be decided on a case-to-case basis and brought on record in each case after due approval from heads of both the Institutions.
- c) Any Financial transactions will be made in the name of ACCORD POWER CONVERSION Pvt Ltd and ANURAG UNIVERSITY HYDERABAD.
- d) DST, DSIR and Funded projects and finances related to the project will be handled in a consortium agreed upon by both AUH and APCP.

Sameer Jais
5/12/1

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Medchal (Dist).

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ARTICLE-V : EFFECTIVE DATE AND DURATION OF MoU

- a) This MoU will be effective from the date of its approval by competent authorities at both ends.
- b) The duration of the MoU will be for a period of 5 years from the effective date.
- c) During its tenancy, the MoU may be extended or terminated by a prior notice of not less than six months by either party. However, termination of the MoU will not in any manner affect the interests of the students & faculty who have been admitted to pursue a Training/Project under the MoU.
- d) Any clause or article of the MoU may be modified or amended by mutual agreement of APCP and AUH.

ARTICLE - VI : IPR

Rights regarding publications, patents, royalty, ownership of software/design/product developed etc. under the scope of this MoU, should be decided by APCP.

ARTICLE – VII : CONFIDENTIALITY

During the tenure of the MoU both AUH and APCP will maintain strict confidentiality and prevent disclosure of all the information and data exchanged under the scope of this MoU for any purpose other than in accordance with this MoU.

Both AUH and APCP shall bind their respective personnel who come into possession or knowledge of any confidential information not to disclose the same to third parties without written approval of the disclosing party or use such confidential information for any use other than intended under this agreement or PROJECTS.

Further both AUH and APCP should put in place adequate and reasonable measures to keep and store confidential information secure to prevent any unauthorized use.

CONFIDENTIAL INFORMATION shall mean any proprietary information, data or facts belonging to PARTIES collectively or severally, disclosed by the disclosing party under this agreement or any subsequent agreement, whether in writing, verbal or electronically, irrespective of the medium in which such information is stored, which is marked confidential or with any other words having similar meaning by the disclosing party, or specifically agreed to be kept confidential by the parties, or declared or identified so by the disclosing party before such disclosure or during the discussions. However confidential information should not include any data or information which:

- (a) is or becomes publicly available through no fault of the receiving party,
- (b) is already in the rightful possession of the receiving party prior to its receipt of such data or information;
- (c) is independently developed by the receiving party without reference to the confidential information of the disclosing party


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- (d) is rightfully obtained by the receiving party from a third party or is in the public domain
- (e) is disclosed with the written consent of the party whose information it is, or
- (f) is disclosed pursuant to court order or other legal compulsion, after providing prior notice to the disclosing party.

ARTICLE – VIII : AMENDMENTS

Any amendment and/or addenda to the AGREEMENT should be in writing and signed by the PARTIES hereto and shall only after such execution be deemed to form part of the AGREEMENT and have the effect of modifying the AGREEMENT to the extent required by such amendment or addenda.

ARTICLE – IX : RESOLUTION OF DISPUTES

- a) This agreement shall take effect and be construed in accordance with the Laws of India and be subject to the jurisdiction of the courts at Hyderabad.
- b) The dispute or difference whatsoever arises between PARTIES in relation to or in connection with this AGREEMENT both the parties should first try to resolve the dispute/difference amicably between them, failing which the matter can be referred to and settled through arbitration.

ARTICLE – X : MISCELLANEOUS

- a) The headings and sub-headings are inserted for convenience only and should not affect the construction of this Agreement.
- b) After this Agreement has been signed, all preceding understandings/negotiations and correspondence pertaining to it will become null and void.

Sameer Jais
5/1/21
REGISTRAR
ANURAG UNIVERSITY
Venkatapur (V), Ghatkesar (M),
Medchal (Dist).

Reguler

IN WITNESS WHEREOF PARTIES HERE TO HAVE ENTERED INTO THIS
AGREEMENT EFFECTIVE AS ON THE DAY AND YEAR FIRST WRITTEN
ABOVE



Manager Human Resource
ACCORD POWER CONVERSION Pvt Ltd
HYDERABAD

Sameer Int-s
5/1/21

Registrar
Vice-Chancellor
ANURAG UNIVERSITY
HYDERABAD

REGISTRAR
ANURAG UNIVERSITY
Venkatapur (V), Ghatkesar (M),
Medchal (Dist).

WITNESS

1.....

2.....

DATE:

WITNESS

1.....

2.....

DATE:



MEMORANDUM OF UNDERSTANDING (MOU)

This MoU is made on this 9th day of December, 2020 at **Anurag University**
BY and BETWEEN

M/s Eride Industries, having its registered office at Plotno 2-24-90/3, Survey No. 553, Lakshmi Narayana Nagar, Hyderabad, Telangana 500039, INDIA hereinafter referred to as “**the Company**” (which expression shall wherever the context so admits include its successors in interest, liquidators, administrators and permitted assignees) of the **First Part**

AND

ANURAG UNIVERSITY, a Private University located at Venkatapur (V), Ghatkesar Mandal, Hyderabad, Telangana 500088, hereinafter referred to as “**the Institute**” (which expression shall wherever the context so admits include its successors in interest, liquidators, administrators and permitted assignees) of the **Second Part**

WHEREAS all the parts are hereinafter referred to as “**Parties**”;

AND WHEREAS, the parties by this MoU desire to establish common framework to facilitate in terms of exchange of information, material, to execute other agreements as may be necessary for the Project, Skill Development, Training Programmes and Placements.

NOW THEREFORE, in consideration of the promises and mutual covenants hereinafter contained, the Parties hereto agree as follows:

1. OBJECTIVES OF THE MOU

The objective of this Memorandum of Understanding is:

- i. To promote interaction between Anurag University and Eride Industries in mutually beneficial areas.
- ii. To maintain healthy association between Anurag University and Eride Industries.

2. PROPOSED MODES OF COLLABORATION

Devedar
9/12/2020

Raveen Satish
09/12/2020

Anurag University and Eride Industries propose to collaborate through

1. Internships and UG and PG student projects and at both the ends.
2. Basic and advance training programs to fresh recruits of Eride Industries in terms of analytical and formulation development. Encouraging the employees of Eride Industries for doing Ph.D. degrees in Anurag University. The eligibility criteria for selection of the candidates will be under the sole discretion of Anurag University.
3. Developing Certification programs in various technical and advanced areas in association with Eride Industries by providing complete hands on as a part of Skill development programme.
4. Training of Eride Industries personnel through Continuing Education Programs and Skill Development conducted by Anurag University in areas of interest to Eride Industries
5. Any other appropriate mode of interaction agreed upon between Anurag University and Eride Industries.

Each of the above modes of interaction will be initiated by entering into a separate agreement between the two parties.

3. TECHNICAL AREAS OF COLLABORATION

The principal technical areas of collaboration between Anurag University and Eride Industries will be as set out separately.

4. SHARING OF RESOURCES

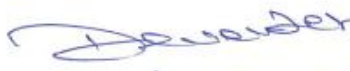
The Parties shall share the required resources to further the Research Project, Training Programme and to meet the objectives in terms of this MoU.

5. RIGHT OF USE

- i. The background know-how/ IP of the Projects, Training programme belongs to both the parties and can be used freely by the parties for execution of the project within the scope of their own objectives.
- ii. Each party shall promptly make written disclosure to discuss and coordinate with one another in the aspects of Project IP, publication needs, and commercial exploitation of Project IP etc.

6. CONFIDENTIALITY

- i. During the tenure of the MoU, all the Parties, undertake to maintain strict confidentiality


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and refrain from disclosure thereof, of all or any part of the information and data exchanged/generated from the Project for any purpose other than in accordance with this MoU. It shall be the responsibility of all the Parties to ensure maintenance of such confidentiality in respect of their behalf and on behalf of their employees, representatives and associates involved in the Project.

- ii. The Parties shall not have any obligation of confidentiality with respect to any information that:
 - a. is in the public domain by use and/or publication at the time of its disclosure by the disclosing party; or
 - b. was already in possession of the recipient prior to receipt from the disclosing party; or
 - c. is properly obtained by the recipient from a third party with a valid right to disclose such information and such third party is not under confidentiality obligation to the disclosing party; or
 - d. was disclosed to any third party on a non-confidential basis prior to commencement of the Project; or
 - e. is required by public authority, by law or decree.

7. INTELLECTUAL PROPERTY

1. *Force Majeure*

The Parties shall not be held responsible for non-fulfillment of their respective obligations in successful completion of the Project under this MoU due to the exigency of one or more of the *force majeure* events such as but not limited to acts of God, war, flood, earthquakes, strikes not confined to the premises of the Party, lockouts beyond the control of the Party claiming *force majeure*, epidemics, riots, civil commotion etc. lying beyond the reasonable control of and not brought about at the instance of the Party claiming to be affected by such event and which has caused the non-performance or delay in performance; provided on the occurrence and cessation of any such event the Party affected has given a notice in writing to the other Parties within one month of such occurrence or cessation.

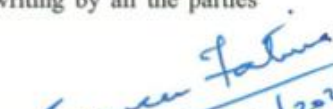
2. **Validity and Termination**

- i. The MoU shall be effective from the date of its signing by all the Parties. The MoU shall be valid for valid for 5 years.
- ii. The Parties may renew/terminate this MoU by mutual agreement.

3. **Alterations**

Any alteration and amendment to this MoU shall be made in writing by all the parties


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involved

4. Transferability of Rights and Duties

Rights and Duties in this MoU cannot be transferred to third party either in whole or in part, without the prior written consent of the other parties.

5. A separate 'Coordinating Committee' for project monitoring in between principal applicant and collaborator(s) may be constituted.

6. Dispute Resolution and Governance

The parties agree to use reasonable endeavors to amicably settle any dispute arising among them in relation to the execution of the Project. (Arbitration provisions may be added).

The MoU shall be governed by the Laws of India.

7. Notices

Notices shall be sent to the contact person at the address as set forth below or such address as any party shall have furnished to the parties.

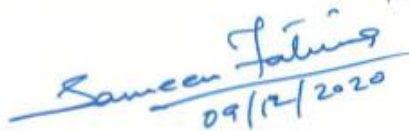
IN WITNESS WHEREOF the Parties hereto through its duly authorized representatives have signed this MoU on the day, month and year mentioned hereinbefore.

Parties - Authorized Signatory



For and on behalf of M/s **ERIDE INDUSTRIES LIMITED** "the Company"

9/12/2020



09/12/2020

For and on behalf of **ANURAG UNIVERSITY** "Private University"