SDG-17 Annual Report 2019-20

17 PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the global partnership for sustainable development

Vellore Institute of Technology
Vellore – 632014
Tamil Nadu, India
www.vit.ac.in

Report of VIT-Vellore Campus

Partnerships for the Goals

Sustainable development goals require a partnership between institutes, government, NGOs and Private sectors. These 17 goals have complex challenges that seek multi-stakeholder partnerships that mobilize and share knowledge, expertise, technology and resources. VIT establishes collaboration with Universities, Institutes, Government bodies, non-government organizations to achieve the goals.

International partnership

VIT partnered with the following international institutes for joint research in various disciplines, faculty exchange, student exchange, Semester abroad program, organizing joint conference etc.

Newly established Partnership with International Universities and Institutes

S.No	Organisation	Activity date	Purpose and Activities
1	City University of London	11.06.2019	Joint research
2	Monash University	19.06.2019	Offering joint online courses
3	Yangon Technological University	20.06.2019	Joint conference
4	Duke University	28.06.2019	Student Exchange/ Partner in EU-Asia Link Project to design the Curriculum for B.Tech Energy Engineering Program
5	Mindanao State University-Iligan Institute of Technology.	29.07.2019	Semester Abroad Program (SAP)
6	George Mason University	30.07.2019	Faculty and Student Exchange Programme/ Joint Research/ Twinning Programme
7	Kielce University of Technology	30.07.2019	Faculty and Student Exchange Program/ Joint Research
8	Gazi University	19.07.2019	Faculty and Student Exchange Program/ Joint Research/
9	Kathmandu University (The Department of Civil Engineering)	04.08.2019	Faculty and Student Exchange Program/ Joint Research
10	Kaunas University of Technology (KUT)	19.08.2019	Student Exchange Specific agreement
11	Northern Arizona University	19.08.2019	SAP students/ Faculty and Student exchange
12	Institut Francais en Inde	20.08.2019	French Tutor Nomination
13	Shenzhen Institutes of Advanced Technology, Chinese Academy of Science	02.09.2019	International Cooperarion Agreement

14	Swinburne University of Technology, Sarawak Campus, Malaysia	20.09.2019	Faculty and Student Exchange Programme/ Joint Research/ Twinning Programme
15	Waterford Institute of Technology, Waterford	21.09.2020	Faculty and Student Exchange Programme/ Joint Research/ Twinning Programme
16	University of Evansville, Indiana	24.09.2019	Student exchange
17	University of Nottingham	25.09.2019	Participation in VIT's 4th International Higher Education Fair, September 2019
18	Georgia State University	25.09.2019	Faculty and Student Exchange Program/ Joint Research
19	Georgia state university, Atlanta, USA	25.09.2019	Joint Research and Conference
20	Joanneum Research Forschungsgesellschaft mbH	01.10.2019	Faculty and Student Exchange Program/ Joint Research
21	George Washington University	08.10.2019	Faculty and Student Exchange Program
22	Dankook University	12.10.2019	Faculty and Student Exchange Program/ Joint Research
23	University of the Philippines Los Banos	01.11.2019	Faculty and Student Exchange Program/ Joint Research
24	University of Kentucky	18.11.2019	Faculty and Student Exchange Program/ Joint Research
25	Institute of Technology PETRONAS Sdn. Bhd	20.11.2019	Faculty and Student Exchange Program/ Joint Research
26	Northern University Bangladesh	24.11.2019	Faculty and Student Exchange Program/ Joint Research
27	Independent University of Bangladesh	24.11.2019	Faculty and Student Exchange Program/ Joint Research
28	Gongqing College of Gnanchang University	24.11.2019	Faculty and Student Exchange Program/ Joint Research
29	Tamkang University	25.11.2019	Faculty and Student Exchange Program/ Joint Research
30	University of Liverpool	26.11.2019	Faculty and Student Exchange
31	Xiamen University (Letter of Intent)	29.11.2019	Faculty and Student Exchange Program/ Joint Research
32	University of Lincoln (Letter of Intent)	29.11.2019	Faculty and Student Exchange Program/ Joint Research
33	Universidade Luterana Do Brasil	02.12.2019	Faculty and Student Exchange Program/ Joint Research

34	Arba Minch University, Ethiopia	11.02.2020	Faculty and Student Exchange Program/ Joint Research
35	National Cheng Kung University (NCKU), Tainan	12.02.2020	Faculty and Student Exchange Program/ Joint Research
36	Athens University of Economics and Business	12.02.2020	Faculty and Student Exchange Program/ Joint Research
37	Universitas Negeri Yogyakarta	20.02.2020	Faculty and Student Exchange Programme/ Joint Research
38	Victoria University of Wellington	21.02.2020	Faculty and Student Exchange Program/ Joint Research
39	Pentecost University College (PUC)	05.03.2020	Faculty and Student Exchange Program/ Joint Research
40	Kyung Hee University	04.06.2020	Faculty and Student Exchange Program/ Joint Research

Semester Abroad program aims to encourage students from all streams to pursue their final semester in one of the partner Universities abroad. This will help the institute to collaborate with the partner Universities for performing the joint research in niche area and also this will provide a platform to the students to explore the international facilities SDG10.

No. of students visited to the partner Universities in the academic year 2019-20

Sl.No	University	Country	No. of students
1	Arizona State University	USA	4
2	City University	UK	1
3	Colorado State University	USA	2
4	Deakin University	Australia	3
5	EMBL Heidelberg	Germany	1
6	Evansville	USA	2
7	IUPUI	USA	1
8	Karlsruhe Institute of Technology	Germany	2

9	Koc University	Turkey	1
10	Massachusetts Institute of Technology	USA	1
11	Miyazaki University	Japan	1
12	Nanyang Technological University	Singapore	10
13	National Institute of Genetics	Japan	1
14	National Taiwan University of Science and Technology	Taiwan	1
15	National University of Singapore	Singapore	5
16	Northern Illinois University	USA	3
17	Plymouth University	UK	3
18	Rochester Institute of Technology	USA	14
19	Saskatchewan University	Canada	1
20	Stockholm University	Sweden	1
21	Taipei Medical University	Taiwan	2
22	The University of British Columbia	Canada	2
23	Tsinghua University	China	1
24	Ulsan National Institute of Science & Technology	South Korea	1
25	Umea University	Sweden	1
26	Universidade de santiago de compostela	Spain	1
27	University of Alberta	Canada	1
28	University of California, San Diego	USA	1
29	University of Guelph	Canada	1
30	University of Illinois -Urbana	USA	1
31	University of Melbourne	Australia	1

32	University of Michigan	USA	1
33	University of Porto	Portugal	3
34	University of Texas Arlington	USA	1
35	University of Waikato	New Zealand	2
36	University of Wolverhampton	UK	3
37	University west	Sweden	1
38	UPC Barcelona Tech	Spain	1

Fund generated for the collaborative research

Along with the partner institutes, VIT secured funding from various agencies for research on various SDGs

Collaborating institute	Agency	SDGs
CDMM, VIT and Vladikavkaz Scientific Center of the Russian Academy of sciences, Vladikavkaz, Russia	DST (Indo-Russia)	Landslide monitoring – SDG 13, SDG15
SELECT, VIT and St Petersburg State University, St. Petersburg, Russia	DST (Indo-Russia)	Child health care – SDG 3
SELECT, VIT and Elsaryat St. Abbasis, Cairo, Egypt	DST (Indo-Egypt)	Energy -SDG13
CBCT, VIT and Amthera Life Sciences Pvt. Ltd, Bengaluru, Karnataka	BIRAC	Biosimilar development - SDG 3
SCE, VIT and Institut Fur, Geologische Wissenschaften, Fachbereich Geowissenschaften, Freie Universitaet, Berlin	DST-DAAD	Water resources – SDG6
SBST, VIT and Ton Duc Thang University, Vietnam	FOSTECT	Cancer therapy - SDG 3
SCOPE, VIT - University of Peradeniya, Galaha Rd, Sri lanka	Erasmus programme of the European Union	Technology-enabled active learning – SDG9

Partnership with NGOs and Government

Center for Sustainable Rural Development and Research Studies (CSRD&RS) collaborates with NGOs and Government bodies to develop rural areas through various innovative initiatives. The center acts as a bond between VIT and society to provide better and effective services

CSRD & RS organised numerous programme for the upliftment of rural people

Programme	Partner agency	SDG
Academic Innovation and Entrepreneurship Development Program	Entrepreneurship Development and innovation institute, Govt. of Tamil Nadu	SDG4
Tribal Development - Mega Loan Mela	National Bank for Agriculture and Rural Development and Indian Bank	SDG10
Unnat Bharat Abhiyan 2.0 /Grama sabha / Health Camp / TB screening	MHRD, Govt. of India	SDG3
GV School Development Capacity Development	Directorate of Education, Govt. of Tamil Nadu	SDG9
Entrepreneurship Development Programme- EAC Awareness Camp / NEEDS Training	National Science & Technology Entrepreneurship Development Board (NSTEDB), Dept. of Science & Technology, and Govt. of India	SDG10
Skill Development	National Research Development Corporation (NRDC), Government of India	SDG10
Life Skill Development for Govt. Schools in Vellore District.	Directorate of Education, Govt. of Tamil Nadu	SDG4, SDG10
Micro Entrepreneurship Development Programme for promoting self-employment opportunities for Tribal communities	National Bank for Agriculture and Rural Development	SDG4, SDG10

Mini Millets Value Addition EDP Training Programme - Date: 04.12.2019 to 07.12.2019

TB SCREENING AWARNESS CAMP & HEALTH CAMP IN PEENJAMANDHAI VILLAGE

GV SCHOOL DEVELOPMENT - PROVIDED 100 DUAL BENCH & DESK FOR GOVT. HR. SEC. SCHOOL – PERANPATTU VILLAGE – GUDIYATHAM BLOCK-VELLORE DATE : 07.01.2020
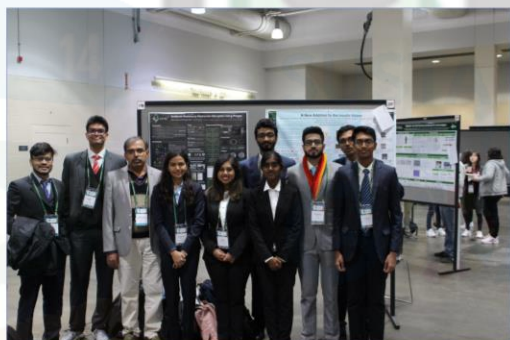

NEEDS – EDP – From 13.02.2020 to 13.03.2020

International competitions

VIT encourages young minds to participate in various competitions held across the country and the globe. Our students actively participate and provide innovative ideas and solutions for the issues. One such competition is iGEM; VIT students participated and secured the Silver medal for the project compacting the Antibiotic resistance in bacteria (SDG-03).

International Genetically Engineered Machine (iGEM 2019)

Description: Vellore Institute of Technology (VIT) participated in the International Genetically Engineered Machine (iGEM-2019) competition organized by Massachusetts Institute of Technology, Boston. With the theme **ARMD'UP** (Antibiotic Resistance Mechanism Disruption Using Phages) the team was successfully able to develop a biosensor that can remotely identify and destroy the resistant bacteria. Among more than 350 participating teams from various institutes around the world, VIT-Vellore-2019 team triumphantly bagged **silver medal**.

Name	Registration Number	Name	Registration Number
Amatullah Nakara	17BBT0080	Sahana Lakshmi Venkatesh	16BBT0084
Abhinav Kumar	17BIT0030	Shraman Dhar	17BBT0170
Anisha Thite	16BBT0284	Siddarth H	17BBT0019
Neha Balasundaram	16BIT0040	Simanta Ghosh	17BBT0171
Velmurugan Pravin	17BBT0210	Soundaram Veerappan	16BBT0041
Raghav Mehta	17BBT0055	Srestha Mitra	17BBT0115
Rahul Sharan	17BBT0109	Tanmay Talwalkar	17BBT0034
RM Rajeeva Lokshanan	16BBT0145	B Krithi Vishnu	16BBT0175
Rudra Shekhar Bose	16BBT0003		

Report of VIT-Chennai Campus

PREAMBLE

Every individual, such as Institutions, Corporate, Government and Society at large have a role to play in implementing sustainable development goals. This can be achieved only if everyone works together. Strong commitment towards National and Global partnership and cooperation is vital for sustainable development.

INTERNATIONAL PARTNERSHIP PROGRAMMES

VIT University has signed MoUs with University of Nottingham, UK, Binghamton University, Georgia State University-USA, RIT-USA, Universiti Teknologi Petranos(UTP), Malaysia, A Star Research entities, Singapore and so on., for academic cooperation to promote the advancement of learning through research, exchange and cooperation in teaching with focus on Faculty and Student exchange programmes, host lectures, seminars / webinars, organize joint research projects with specific focus on inter-disciplinary and trans-disciplinary domains, set up Centre of Excellence and assist in other academic activities that will be of joint interest to both the Universities.

MoU with UTP -2019

INDIANA SUMMIT -2019

INTERNATIONAL RESEARCH COLLABORATIONS

Several international collaborative projects are carried out by our faculty members in collaboration with researchers across the globe. To name a few:

- o DST-DAAD (Indo - German) collaborative research on " Optimization of Wave Energy system – A Primitive Model for Indian Coastal Lines"
- o DST – KNRF (Indo Korean) collaborative research on "Development of a strategy for optimal power production from a 100 kW class Horizontal Axis Tidal Stream Turbines System"
- o A Joint Indo-UK research project on "Novel Air Filter to Suppress Viral Load in Confined Space", in collaboration with Royal Academy of Engineering (RAENG), UK.

INDIANA SUMMIT 2019

Vellore Institute of Technology organized the 2nd World Summit on "Advances in Science Engineering and Technology" at Indiana University-Purdue University, Indianapolis (IUPUI), USA during October-2019. In this summit, 24 Keynote speakers, 40 invited speakers and 200 delegates from 22 countries met in IUPUI, USA to discuss challenges of Interdisciplinary, multidisciplinary and trans-disciplinary research. The Chief Guest of the summit, Mr. Gregory Alan Ballard, delivered the inaugural address where he emphasized the necessity of women involvement in technology and research for social causes.

WEEF 2019

Disruptive Engineering Education is an innovative process with a paradigm leap from the existing practices that lead to simplicity, convenience, accessibility and affordability for sustainable development. The 9th World Engineering Education Forum – WEEF 2019 was organized by VIT Chennai during November-2019 with an aim to exploring the adoption of disruptive technologies for engineering education. The largest engineering education gathering in the world, WEEF brings together a large number of stakeholders, including engineering educators, leaders, students, industry, government and non-governmental institutions to learn, share & build fruitful and long-term collaborations focusing on the Conference Theme "Disruptive Engineering Education for Sustainable Development." This prestigious event was held in India for the first time.

A GLIMPSE OF WEEF -2019

PECCON-2019

The second International Conference on Power Engineering, Computing and CONtrol, PECCON 2019 was organized during December 2019 by VIT Chennai in collaboration with Binghamton University, USA. The main theme of PECCON 2019 is "Smart technology for smart grid". The conference provided a forum for practicing professionals, academicians, research scholars and students to exchange their innovative ideas, inferences and knowledge gathered through rigorous experiments. The major sessions of the conference are, Sustainable Energy Technologies, Power Electronics, Power Engineering, Electric Vehicles, ICT technologies, Data Science and Analytics, Smart Eco Structures and Systems and Allied Technologies. The

conference provided a platform for researchers across the globe to share their innovative ideas and inventions and to discuss the pros, cons and sustainability of their ideas.

A GLIMPSE OF PECCON-2019

INDUSTRY CONCLAVE

VIT Chennai has organized an "Industry conclave on Artificial Intelligence" in October-2019 bringing together participants from different sectors like IT, Medicine, Academicians, Researchers, Students etc. to discuss on the scope and opportunities of AI in various fields through keynote address, panel discussion and hands on training on machine learning. Participants benefitted from the keynote sessions on:

Image and Voice recognition, Video and Game streaming, Content and video based image recommendation for prediction of chronic diseases, Reinforcement Learning, Influence of AI/ML in financial operations. Panel discussion on "Key challenges in adoption of AI in India" was a brain-storming session with lots of takeaway for the participants.

Keynote Address- AI Conclave **Students participating in AI Conclave**

INDUSTRY COLLABORATION

VIT Chennai partners with Paterson Energy Private India Limited to work together towards formulating strategies for sustainable municipal solid waste management, hazardous, plastic and industrial waste solutions, waste to energy and circular economy solutions, development of capacity building programs and joint research and development of product or process.

OUTREACH PROGRAMMES

A guest lecture on "Introduction of recent researches on tidal stream turbines in Korea" was delivered by Dr.Jin Hwan Ko, Jeju National University, South Korea. Dr. Jim imparted his unparalleled and in depth knowledge about renewable power sources, focusing specially on Tidal Power Turbines as an efficient energy source.

Dr.Shin Hyung Rhee of Seoul National University gave a lecture on "Tidal Energy generation and the experimental method of designing the blade dynamics with the real time facility available at Seoul National University.

SMEC-VIT Chennai has organized a one-day online workshop on "Towards achieving carbon neutrality (TACN 2020)" which focussed on sustainable energy.

Dr.Jin Hwan Ko receiving memento

Lecture by Dr.Shin Hyung Rhee

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