ST. ALBERT'S COLLEGE (AUTONOMOUS)

St. Albert's College has a history of 70 years of selfless service in the field of higher education and has been producing committed dynamic leaders for society. The campus is situated in the heart of the Kochi city, the 'business capital' of Kerala. The College is affiliated to Mahatma Gandhi University and is functioning under the management of the Archdiocese of Verapoly. When it was started in 1946, the college was affiliated to the University of Madras. In 1958, when the Kerala University Act came into force, the affiliation was shifted to Kerala University and subsequently, in 1983 when the Mahatma Gandhi University was established, the College came under The Mahatma Gandhi University. The College comes under Section 2(f) and 12(B) of the UGC Act. **In 2009, the National Assessment and Accreditation Council (NAAC) awarded A grade to the College, in the re-accreditation process**. **The Peer Team has observed, 'obtaining autonomy' as one of the Institutional Opportunities**. The college received **ISO 9001: 2008 certifications** in 2010 after the audit conducted by TÜV Rheinland and surveillance are conducted every year. The College has been selected for the award of '**Star College Status**' by the Department of Biotechnology, Government of India in 2013. The College is a backward minority educational institution covered under article 30 of the constitution of India.

The college is conducting seventeen undergraduate courses, twelve postgraduate courses and research programs in six disciplines. The College has adequate infrastructural facilities like class rooms, laboratories, library, Seminar hall, Auditorium, play grounds, sophisticated laboratory equipment etc. The management is keen in augmenting and maintaining infrastructure facilities.

DEPARTMENT OF B.VOC RENEWABLE ENERGY

Vocational, or skills-based, education is becoming significant in today's perspective as the industry expects all its new employees to have necessary skills at the workplace. Nearly 95 per cent of India's labour doesn't possess formal vocational skills and the skills gaps in Indian organisations are the highest globally compared to the western countries according the recent The City and Guilds Group's Skills Confidence report 2016. To address the gap and unemployable situation and ensure that the students have adequate knowledge required for various industries, the University Grants Commission (UGC) launched Central Sponsored Scheme of B. Voc degree courses in 2013. This scheme launched B.Voc programmes under the National Skills Qualifications Framework (NSQF) which are approved for 127 universities and colleges to impart knowledge and skills for employment and entrepreneurship to graduates of higher education system.

St. Albert's college (autonomous), Ernakulam, Kerala have also taken part in the mission of UGC in 2014 by starting a new B. Voc degree course in Renewable Energy. We have developed our own curriculum for B.Voc Renewable energy degree programme with the involvement of Industry. We are offering the syllabus which consists of general education components and skill components. The skill component includes core courses, project, one month Hands on Training (HOT), one month On Job Training (OJT) and one and half month final project for the students. We also offer academic flexibility to the students as candidates from any stream can join the programme. If the students successfully complete the first year and second year they will award diploma certificate and advance diploma certificate in B. Voc renewable energy respectively. Those who successfully complete the third year will award B. Voc degree in renewable energy. We have presently 32 students in third year , 47 students in second year and 56 students in first year . B. Voc. Renewable energy degree course studying in our college they are affiliated to Mahatma Gandhi University, Kottayam, Kerala. We become autonomous in 2016 and we have 97 students total in our first last two autonomous B. Voc renewable energy batches.

Curriculum Design and Development

- We have developed our own curriculum for B.Voc. Degree programmes with the involvement of industry
- A curriculum design workshop was conducted on 21st October 2014

Curricular Planning and Implementation

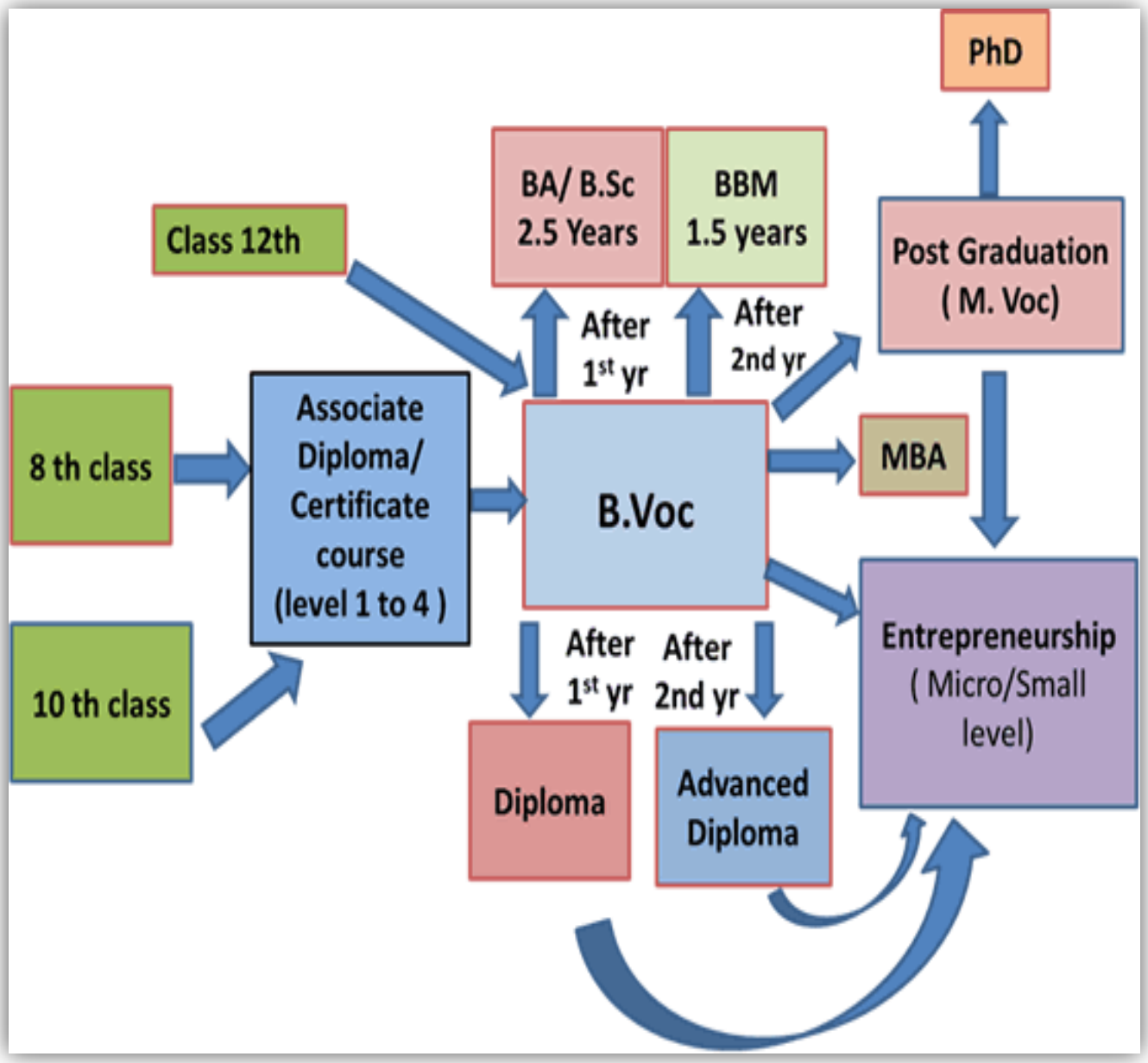
- Curriculum was planned giving due importance to the development of skill in the respective areas – Industry linkages
- It was planned for a student intake of 50
- The designed curriculum was approved by the University
- Necessary infrastructure including labs were established/installed as per the requirements in the curriculum

Academic Flexibility

- Candidates from any stream can join the programme
- Multiple intake and exit points
- Transition to higher degree programmes including M.Voc Renewable Energy, M.Sc. Renewable Energy or MBA

B.VOC COURSE OPPORTUNITIES

(MULTIPLE ENTRY AND EXIT POINTS)



STAFF PROFILE

NAME	DESIGNATION	QUALIFICATION
Rev. Fr. John Christopher Vadassery	Nodal Officer	MCA
Ms. Pearl Antonette Mendez	HOD in charge & Asst. Professor , Department Treasurer, Examination Committee Member, Department IT in-charge	M. Tech (ECE)
Ms. Greeshma S	Asst. Professor, Department Secretary, Placement Co ordinator	M. Tech (EEE)
Mr. Antony Raju	Asst. Professor IEDC Co ordinator Sports Co ordinator	M. Tech (ME)
Ms. Sanju Augustin	Asst. Professor DQAC Co ordinator	M.Sc Physics
Ms. Nithya S Menon	Asst. Professor Arts Co ordinator UBA Co ordinator	M.Sc Physics, B.Ed

RESEARCH ARTICLES PUBLISHED BY STAFF

NAME	TITLE	NAME OF JOURNAL	YEAR
Ms. Pearl Antonette Mendez	Design of Underwater wireless optical/acoustic link for reduction of back-scattering of transmitted light.	The International Journal Of Engineering And Science (IJES)	2015
Ms. Pearl Antonette Mendez	A Comparative Study of Underwater Wireless Optical Communication for Three Different Communication Links.	IOSR Journal of Electronics and Communication Engineering (IOSR-JECE	2015
Ms. Pearl Antonette Mendez	Mechanical Characterization of Shape Memory Alloy Based RF MEMS switch using ANSYS	The International Journal Of Engineering And Science (IJES)	2015
Ms.Pearl Antonette Mendez	A Comparative Study of Robust Blind Image Watermarking Scheme for Image Authentication Using DNA Encoding, Optimal Wavelet Basis & Discrete Wavelet Transform	International Journal of Innovative Research in Computer & Communication Engineering (IJIRCCE)	2015
Ms.Pearl Antonette Mendez	Hybrid Zeroth-Order Resonance Patch Antenna with Improved Half Power Beamwidth	IOSR Journal of Electronics and Communication Engineering (IOSR-JECE)	2015
Ms.Pearl Antonette Mendez	An imperceptible blind image watermarking scheme for image authentication using DNA encoding and multi-resolution wavelet decomposition	International Journal of Engineering Inventions(IJEI)	2015
Ms Greeshma S	Grid Connected Self Synchronized Inverter	IOSR Journal of Electrical and Electronics (IOSR – JEEE)	2017

SPONSION 2019 – GRADUATION CEREMONY of 2016-19 Batch

29th June, 2019

Visit to Mithradham as part of Gandhi Global Solar Yatra – Aug 6th, 2019

Talk by **Dr. Chetan Singh Solanki**,

Department of Energy Sciences & Engineering, IIT Bombay

Students & staff of the department along with Dr. Chetan Singh Solanki

FLOOD RELEIF ACTIVITY – ASSEMBLING LED LAMPS FOR THE FLOOD AFFECTED PEOPLE OF WAYANAD

Aug 12th, 2019

On 8 August 2019, due to heavy rainfall in the Monsoon season, Severe flood affected Kerala. As a security measure in the prevailing situation of heavy rains, the Government of Kerala had issued Red alert in the 9 districts in Northern and Central Kerala, orange alert in 3 districts of Central Kerala, and yellow alert in the 2 districts of southern Kerala. Thousands of people have been evacuated to safer places and relief camps. A total of 101 people have died due to rain-related incidents since 14 August 2019.

Students of Renewable Energy Department under the guidance of teachers of the department assembled emergency LED lamp kits on 12th Aug and sent it to the flood affected areas of Wayanad.

Students of the Department assembling LED Lamps

The assembled LED lamps before being sent to Wayanad

DEPARTMENT CAREER GUIDANCE CELL ACTIVITIES

Placement by **SUNVERGE** Pvt Ltd – September 4th, 2019

Four students, Sony Xavier, Muhammad Afsal, Sooraj Prakash & Lakshmy Mohan got placed in the company and seven of the 2017-20 batch studens got selected for part time job.

ONAM CELEBRATION – Sept 6th, 2019

Celebration along with the inmates of Palliative care unit of General Hospital, Ernakulam

Class wise Presentation as part of Albertian Swachatha Week

27th Sept, 2019

Students took seminars on Fundamental duties, M.K Gandhi & Cleanliness, Model clean city and clean village & Japanese Practise of Cleanliness.

Albertian Swachatha Divas

As a part of adoption of Banerji Road by the College, Renewable Energy department was assigned location from Madhava Pharmacy junction to Ashirbhavan, to be cleaned on Oct 2nd, 2019. The program was inaugurated by Mr. K.E George, member of KCYM.

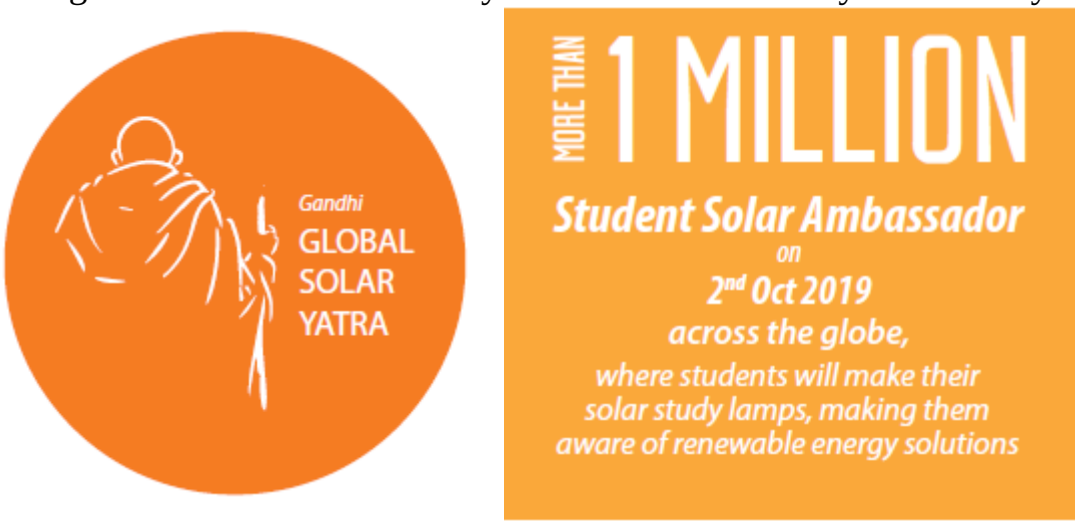
Entrepreneurial Workshop on Solar Powered products

An Entrepreneurial workshop on Solar Powered Products was organized by the department in association with the Albertian Incubation Centre & IEDC on 3rd October 2019 at the Bernard hall. The program was inaugurated by Sri. Nidhish Kumar, Director, Innovation & Technology, Sunverge Pvt Ltd, Cochin.

ENTREPRENEURIAL WORKSHOP
ON
SOLAR POWERED PRODUCTS
09.30 a.m. | 3rd October 2019 |
Inaugurant : Sri. Nidhish Kumar
Director,Innovation and Techno
erge Pvt. Ltd.
Department of
rable Energy
Road, Ernakul
895403578

STUDENT SOLAR AMBASSADOR WORKSHOP 2019

The world needs to switch towards green energy sources and utilize energy efficiently for sustainability of energy to reduce greenhouse gas emissions. Indian Institute of Technology (IIT) Bombay through its Solar Urja through Localization for Sustainability (SoULS) Initiative has been working on facilitating localized solar solutions involving local communities in assembly, distribution, repair and maintanence and even manufacturing of solar products. The Gandhi Global Solar Yatra is organized in the context of climate change, energy access, self-sufficiency in energy and global harmony marking the 150th birth anniversary of Mahatma Gandhi by IIT Bombay.



As a culmination event, the Students Solar Ambassador Workshop was organized on 2nd October 2019 wherein more than 1 Million Students Solar Ambassadors received hands-on training in the solar lamp assembly across the globe on 2nd October 2019. Since this day is recognized as the International Non-Violence Day, the day will be extended as Non-Violence towards Environment Day.

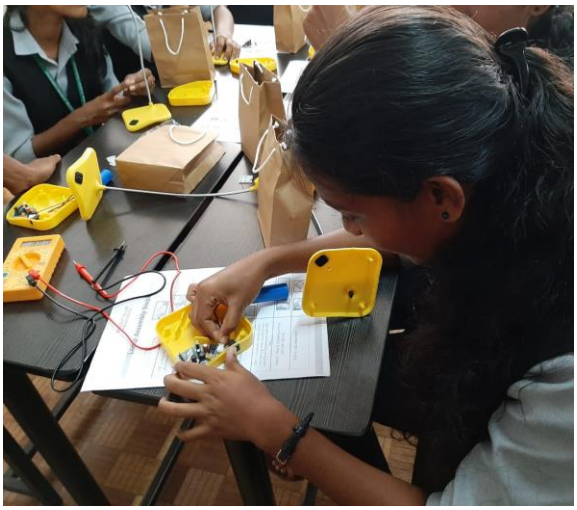
Following outcomes are anticipated through the Gandhi Global Solar Yatra and the Students Solar Ambassador Workshop:

- Sensitization towards dire consequence of climate change
- More than 1 Million Global Students Solar Ambassadors across the globe
- Skill development for millions of students in schools across the world
- Awareness about off-grid solar solutions for complete, cost-effective and reliable energy
- Policy dialogue with critical stakeholders about decentralized solar energy access at scale

- Promotion of International day on Non-Violence to Environment

The Department of Renewable Energy organized this event and almost 75 students received hands on training on solar lamp assembly under the teacher trainers who attended online training from IIT Bombay. Mr. Antony Raju, Ms Pearl Antonette Mendez and Ms. Sanju Augustin (Assistant Professors, Dept of Renewable Energy) were the teacher trainers for the same.

Students assembling the solar lamp under the guidance of the teacher trainers



Solar Lamps after assembling process

Students and teacher trainers with their assembled Solar Lamps

Department Association Inauguration

The department Association was Inaugurated on 4th October 2019 by Mr. T.P.Unnikrishnan (CEO, Sunglow energy solutions pvt Ltd, Thrissur) in the Bernard hall. He also delivered a talk on the topic “Renewable Energy & Climate Change”.

ST.ALBERT'S COLLEGE
Association Inauguration
&
Talk On
"Renewable Energy & Climate Change"
By
Mr. T.P. Unnikrishnan

ST.ALBERT'S COLLEGE
Department of Renewable Energy, St. Albert's College
(Autonomous), Ernakulam
Association Inauguration
&
Talk On
"Renewable Energy & Climate Change"
By
Roland
IN-5

CHRISTMAS PAROL MAKING COMPETITION

EPIPHANO SEASON II – Dec 20th, 2019

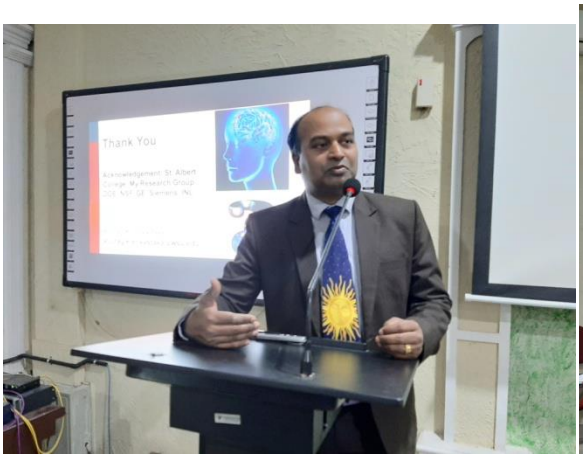
Department stall & Game Zone

Jimikki Thattukada

Albertian Knowledge Summit 2019-20

Day 1 – Jan 3rd, 2020

Renewable Energy department marked the beginning of the Albertian Knowledge summit for the year 2019-20 on Jan 3rd by a talk on "Cyber Physical security / resiliency & Renewable Energy Integration" by Dr. Anurag K Srivastava, (Associate professor, Washington State University & Director of the smart grid demonstration & research investigation Lab) in the Bernard hall.

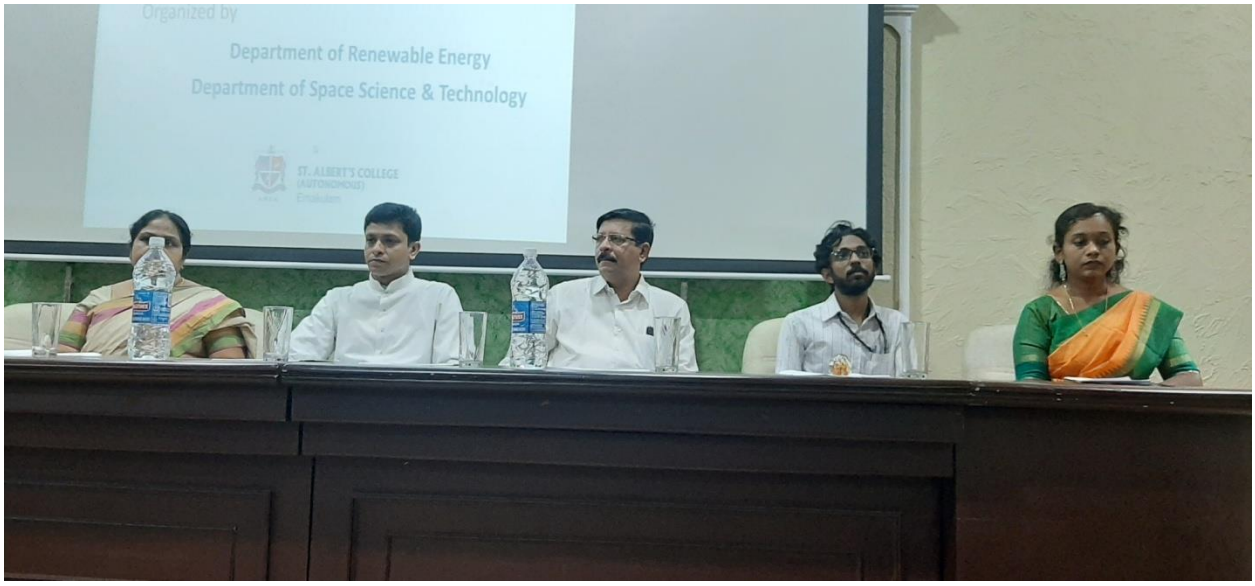


ALBERTIAN
KNOWLEDGE
SUMMIT 2020

Albertian Knowledge Summit 2019-20

Day 2 : 23rd Jan, 2020

As a part of the Albertian Knowledge Summit 2020, the Department of Renewable Energy organized a talk on "Role of operation & maintanence in optimizing solar power plant's performance" in the Bernard hall by Mr. Jose Kallookaran C, President of Kerala Renewable Energy Entrepreneurs & Promoters Association (KREEPA), MD of KC Koppar Energy Solutions Pvt Ltd & Principal of Mithradham Renewable Energy center. Fr. John Christopher Vadassery (Vice Principal, St Albert's College (Autonomous)) presided over the function & Dr. Rosalind Gonzaga (Vice Principal, St Albert's College (Autonomous)) felicitated the gathering.



"SOLAR POWER
IS NOT ABOUT
FASHION,
IT'S ABOUT
SURVIVAL
NORMAN
FOSTER

InFocus

\

ALBERTIAN EDUCATIONAL EXPO 2019-20

Career Guidance Stall

With India facing rising fuel prices, threats to energy security, and the need to manage economic growth with pragmatic consideration of climate change, renewable energy offers a critical solution to India's burgeoning energy demand challenges. Further, renewable energy technologies are more labor-intensive than more mechanized fossil fuel technologies, as demonstrated in more mature markets, and can provide a tremendous opportunity to create domestic jobs. as part of its plan to address the urgent and growing demand for energy by advancing clean energy solutions, the Government of India's Ministry of New and Renewable Energy launched the Jawaharlal Nehru National Solar Mission (NSM or Mission) to promote grid-connected and off-grid solar energy. The goal is to establish India as a global leader in solar energy through policies that lead to the deployment of 100 gigawatts (GW) of solar power by 2022. Solar photovoltaic (PV) power's installed capacity increased from 17.8 megawatts (MW) in early 2010 to approximately 5,000 MW in January 2016. As India ramps up its solar installations at a rapid rate during the second phase of its Mission, an opportunity exists to increase public support for this potentially transformative energy resource.

SOLAR CYCLE

SECURED SECOND PRIZE DURING THE ALBERTIAN EDUCATIONAL EXPO 2020

Sixth Semester B.Voc Renewable Energy students, developed a cycle powered by Solar Energy as a part of their final year project. The Team consisted of 4 students, Sidharth P, Nikhil P Soman, Afzal Kasim and Nikhil Joseph. They used four 12V 7Ah Lead acid batteries for storing energy and powering a 250W motor.

DEPARTMENT IN MEDIA

കേരള കൗമുദി
SINCE 1911
Eranakulam 10 Jan 2020

ഇനി സോളാർ സൈക്കിളും...

സി.എസ്.ഷിജു

ചെലവ് **12000** രൂപ

KAUMUDI SPECIAL

■ 20 വാട്സിന്റെ രണ്ട് സോളാറുകൾ മുമ്പിലും പിറകിലും

സോളാർ സൈക്കിളുമായി വിദ്യാർത്ഥികൾ

തോപ്പുംപടി: സോളാർ സൈക്കിൾ റെഡി. ഹെൽമെറ്റ്, ലൈസൻസ്, ബുക്ക്, പേപ്പർഒന്നും വേണ്ട. പൊലീസും കൈ കാണിക്കില്ല.

സെൻറ്ആൽബർട്സ് കോളേജിലെ ഡിഗ്രി വിദ്യാർത്ഥികളായ നിഖിൽ സോമൻ, സിദ്ധാർത്ഥ്, അഫ്സൽ, നിഖിൽജോസഫ്എന്നിവരാണ് സൃഷ്ടാക്കൾ. കോളേജിലെ ഇന്റർനാഷണൽഎക്സ്പോയിൽ പ്രദർശിപ്പിക്കാനാണ്സൈക്കിൾറോഡിലിറക്കിയത്.. മദ്ധ്യഭാഗത്തായി 12 വോൾട്ട് ഏഴ് ആംപിന്റെ നാല് ബാറ്ററികളും ഉണ്ട്.

ഹാൻഡിൽ ബാറിൽ വലത് ഭാഗത്തായാണ് ആക്സിലേറ്റർ. ഒരു പ്രാവശ്യം ചാർജ് ചെയ്താൽ 35 കിലോമീറ്റർ വരെ സഞ്ചരിക്കാം. ഓട്ടത്തിനിടയിൽ വെയിലത്ത് വീണ്ടും ചാർജ് കയറും. ആക്രിക്കടയിൽ നിന്നും കുറഞ്ഞ വിലക്ക് സൈക്കിൾ വാങ്ങി മിനുക്കി എടുത്താണ് തയ്യാറാക്കിയിരിക്കുന്നത്. .

ഇന്നലെ സംഘം സൈക്കിളുമായി തോപ്പുംപടിയിൽ എത്തി. എക്സ്പോ ശനിയാഴ്ച സമാപിക്കും. ഇന്നലെമുതൽസൈക്കിൾവിദ്യാർത്ഥികൾ പ്രദർശന നഗരിയിൽ ഒരുക്കിയിട്ടുണ്ട്. കേരളത്തിൽ ആദ്യമായാണ് സോളാർ സൈക്കിൾ നിരത്തിലിറക്കുന്നതെന്ന് വിദ്യാർത്ഥികൾ അവകാശപ്പെടുന്നു. ചാർജ് കൺട്രോളറും സൈക്കിളിൽ ഘടിപ്പിച്ചിട്ടുണ്ട്. പുറകിൽ സ്റ്റാൻഡ് സ്ഥാപിച്ച് രണ്ട് പേർക്ക് സഞ്ചരിക്കാവുന്ന രീതിയിലാണ് ഒരുക്കിയിരിക്കുന്നത്.

KERALA KAUMUDI EPAPER
Clipping Kerala Kaumudi - Eranakulam

സൗരോർജത്തിലൊരു 'സൈക്കിളോടിക്കൽ' മൂവ്

സൗരോർജത്തിൽ പ്രവർത്തിക്കുന്ന സൈക്കിൾ നിർമിച്ച് നാൽവർ സംഘം

മട്ടാഞ്ചേരി: സൗരോർജത്തിൽ പ്രവർത്തിക്കുന്ന സൈക്കിൾ തയാറാക്കി എറണാകുളം സെൻറ് ആൽബർട്സ് കോളജിലെ നാലംഗ സംഘം. ബി.കോം വൊക്കേഷനൽ അവസാനവർഷ വിദ്യാർഥികളായ അഫ്സൽ കാസിം, നിഖിൽ ജോസഫ്, നിഖിൽ പി. സോമൻ, സിദ്ധാർഥ് എന്നിവരാണ് സോളാറിൽ പ്രവർത്തിക്കുന്ന സൈക്കിൾ തയാറാക്കിയത്. 20 വാട്സ് വീതമുള്ള രണ്ട് സോളാർ പാനൽ സൈക്കിളിൻെറ മുന്നിലും പിന്നിലുമായാണ് ഘടിപ്പിച്ചിട്ടുള്ളത്.

12 വാട്സ് വീതമുള്ള നാല് ബാറ്ററിയും ചെറിയ മോട്ടോറും സൈക്കിളിൽ ഘടിപ്പിച്ചു. റീയൂസബിൾ എനർജി പ്രോജക്ടിൻെറ ഭാഗമായാണ് വിദ്യാർഥികൾ ഇത് തയാറാക്കിയത്. പഴയ സൈക്കിൾ ഭാഗങ്ങൾ ഉപയോഗിച്ച് തയാറാക്കിയ സൈക്കിളിന് ഏകദേശം 14,000 രൂപ ചെലവായിട്ടുണ്ട്. ഒരു മാസംകൊണ്ടാണ് ഇവർ സൈക്കിൾ നിർമിച്ചത്. നാല് മുതൽ അഞ്ച് മണിക്കൂർ വരെ ചാർജ് ചെയ്താൽ 30 കി.മീ. വരെ സഞ്ചരിക്കാൻ കഴിയും. ബാറ്ററി ചാർജ് തീർന്നാൽ അഡാപ്റ്റർ ഉപയോഗിച്ചും ചാർജ് ചെയ്യാം.

സോളാർ സൈക്കിളുമായി സെൻറ് ആൽബർട്സ് കോളജിലെ വിദ്യാർഥികൾ

Intra Departmental Sports Meet

The Intra Departmental Sports meet was conducted on Jan 16th 2020 at the Albertian Sports Campus, Kaloor. Principal of St Albert's College (Autonomous), Dr. M.L.Joseph inaugurated the program and flagged off the mass run. Different competitions were held for the students like 100m, 200m, 400, 800m, 1500m race, Vertical broad jump & lemon spoon race and winners were awarded medals. The 2018-21 batch students bagged the overall trophy while the 2017-20 batch emerged second.

Inaugural Talk by Principal Dr. M.L. Joseph

Oath taking by the teachers & students of Renewable Energy Department

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NIKE
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NIKE

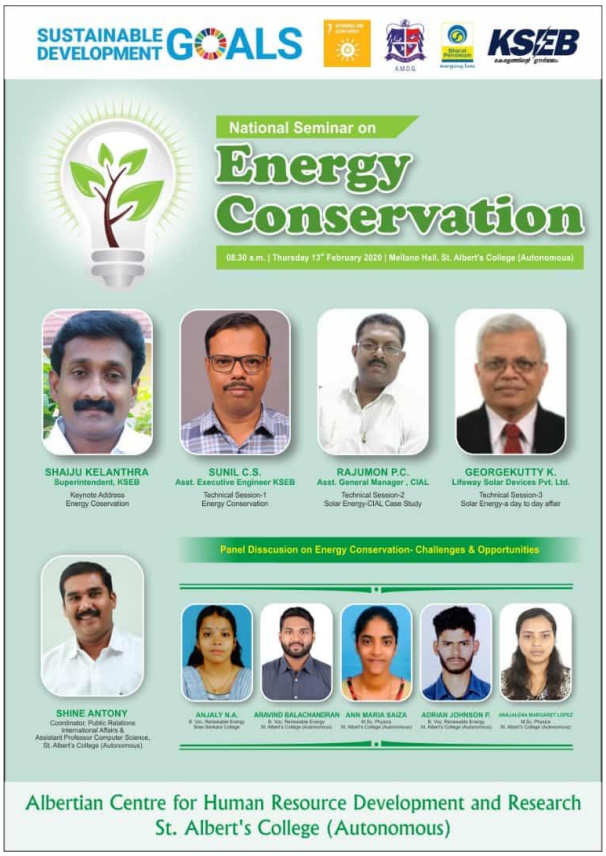
adidas

Neethu Unni (4th Sem) & Abin Antony (6th sem) emerged as individual sports champions

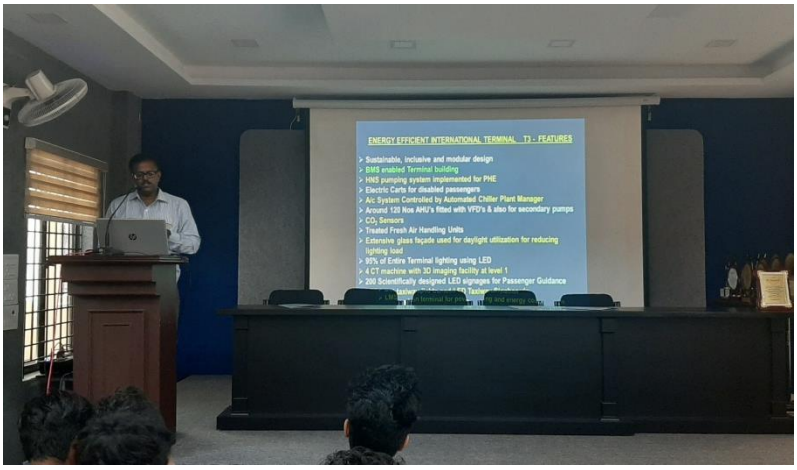
NATIONAL SEMINAR ON

ENERGY CONSERVATION

13th Feb, 2020, Mellano Hall



Technical session I : "Save energy for next generation" by Mr. Sunil C.S, Asst Executive Engineer, KSEB



Technical Session II : Solar Energy – CIAL Case Study by Mr. Rajumon P.C, Asst General Manager, CIAL

Technical Session III : Solar energy – a day to day affair by Mr. Georgekutty K, Lifeway Solar devices Pvt Ltd

Panel Discussion on Energy Conservation – Challenges and Opportunities

ALBERTIAN ENERGY CONSERVATION AWARDS 2020

For Exceptional achievement in Energy Efficiency

February 18th, 2020 at Mellano Hall

First Prize in Student Category : Dijo C.S, IInd year B.Voc Renewable Energy

First Prize in Department Category – Department of Renewable Energy

SUSTAINABLE DEVELOPMENT GOALS

A.M.D.G.

St. Albert's College (Autonomous)

CERTIFICATE

No: 2020/EA08

This is to certify that the Department of Renewable Energy has been ranked as **1st (One) - the Best Department** for the **Albertian Energy Conservation Awards 2020** constituted by the **Albertian Centre for Human Resource Development and Research,** St. Albert's College (Autonomous) in association with BPCL.

Prof. Shine Antony
Coordinator, Albertian Centre for Human Resource Development & Research

Dr. M.L. Joseph
Principal
St. Albert's College (Autonomous)

Fr. Antony Arackal
Chairman & Manager
St. Albert's College (Autonomous)

SUSTAINABLE DEVELOPMENT GOALS

A.M.D.G.

St. Albert's College (Autonomous)

CERTIFICATE

No: 2020/EA03

This is to certify that **Dijo CS,** IInd year B.Voc. Renewable Energy, St. Albert's College (Autonomous) is awarded the **Albertian Energy Conservation Award 2020** (Student Category) for Exceptional Achievement in Energy Efficiency constituted by **Albertian Centre for Human Resource Development and Research,** St. Albert's College (Autonomous) in association with BPCL.

Prof. Shine Antony
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Chairman & Manager
St. Albert's College (Autonomous)

"LETS NURTURE THE NATURE, SO THAT WE CAN HAVE A BETTER FUTURE"

B.Voc Renewable Energy is a Royal course which strictly concentrates towards building up skilled work men in the capacity building of Renewable Energy industry. The course has enabled the students to equip the basic skills in understanding the concept, theory and practical experience in Renewable Technologies along with an Industrial exposure. The Renewable energy industry is developing at a faster rate with huge career potential in Sustainable energy sector. India has set an ambitious target 100GW of solar by 2022, which will generate huge career opportunities.

The course curriculum is tailored to include academic skills and industrial exposure equally enriching B.Voc Renewable energy a completely Job Oriented course with hundred percent Job placement. St Albert's has initiated this course to develop and establish a RE centre in the city and create a platform to build up RE enthusiast youth and contribute towards regions sustainable developments.

The Albert's vibrant campus along with dedicated management and a committed faculty crew makes B Voc Renewable a course professional academia narrowing the gap between the Nature and society.

"EARTH PROVIDES ENOUGH TO SATISFY EVERY MAN'S NEEDS, BUT NOT EVERY MAN'S GREED."

MAHATMA GANDHI