

National Education Society®
Jawaharlala Nehru New College of Engineering, Shivamogga
Youth Red Cross Society



Youth Red Cross Society, JNNCE is established in the year 2019 and registered to Indian Red Cross Society, Karnataka branch on 21 st October 2019.

Activities of Youth Red-Cross Society, JNNCE are initiated through the formal inaugural function, was organized on 19th November 2019 at MBA auditorium. The principal Dr.H.R Mahadevaswamy, preside the function. Sandhya Ravi, Founder Trustee, Traana foundation, Bengaluru was chief guest to the function.

Activities conducted during **academic rear 2019-20**

Sl. no	Date	Activity
1.	19/11/2019	Workshop was conducted for the Red-Cross volunteers "Preparing Books by using unused papers"
2.	12/02/2020	Blood Grouping Camp was conducted for students in association with Sanjeevini Red-Cross Blood Bank Shimoga and Echo Club, Shimoga at Government High School, Navile Basapura Village, Shimoga Taluk.
3.	12/03/2020	Blood Grouping Camp was conducted for JNNCE staff and students in association with Sanjeevini Red-Cross Blood Bank Shimoga, at JNNCE Campus
4.	13/03/2020	Blood Donation Camp was organized for JNNCE staff and students in association with Sanjeevini Red-Cross Blood Bank Shimoga, McGhan Hospital, Shimoga, Tarunodaya Youth Hostel, Shimoga, Rotary Blood Bank, Shimoga at JNNCE Campus

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Activities conducted during **academic rear 2020-21**

Sl. no	Date	Activity
1.	14/07/2021	Covid-19 Vaccination drive was organized for staff of JNNCE in association with NSS Unit, JNNCE and McGhanHospital, Shivamogga

Activities conducted during **academic rear 2021-22**

Sl. no	Date	Activity
1.	24/09/2021	Covid-19 Vaccination drive was organized for staff and students of JNNCE in association with NSS Unit, JNNCE and McGhan Hospital, Shivamogga
2.	29/09/2021	Covid-19 Vaccination drive was organized for staff and students of JNNCE in association with NSS Unit, JNNCE and McGhan Hospital, Shivamogga
3.	12/01/2022	Blood Donation Camp was organized for JNNCE staff and students in association with Sanjeevini Red-Cross Blood Bank Shimoga, McGhan Hospital, Shimoga, Tarunodaya Youth Hostel, Shimoga, Rotary Blood Bank, Shimoga at JNNCE Campus. Also Helath Checkup camp organized in association with Bapuji Ayurveda Hospital, Shimoga
4.	31/05/2022	Health Checkup camp organized for staff of JNNCE.
5.	07/06/2022	Red-Cross volunteers are participated in Tree planting and Seed throwing event organized by Forest Department, Shimoga.

Activities conducted during **academic rear 2022-23**

Sl. no	Date	Activity
1.	30/03/2023	Blood Donation Camp was organized for JNNCE staff and students in association with Sanjeevini Red-Cross Blood Bank Shimoga, McGhan Hospital, Shimoga, Tarunodaya Youth Hostel, Shimoga, Rotary Blood Bank, Shimoga at JNNCE Campus.



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JAWARLAL NEHRU NATIONAL COLLEGE OF ENGINEERING

**DISTRICT BIOENERGY RESEARCH, INFORMATION
AND DEMONSTRATION CENTER.**

SHIMOGA-577204

ANNUAL REPORT 2017-18



DR. H.B.SURESH.
COORDINATOR,
DISTRICT BIOENERGY RESEARCH,
INFORMATION AND DEMO
CENTER,
JNNCE, SHIMOGA-577204

Principal

**Jawaharlal Nehru New
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ABOUT OUR BIOENERGY CENTER

District Bio-Energy Research, Information and Demonstration Center, JNNCE, Shimoga has been established in June 2011 by Karnataka State Bio-Energy Development board, Govt. of Karnataka, Bangalore. This research and information center has been conceptualized as a showcase to study, promote & demonstrate all aspects related to bio-energy. Through this center, we are able to provide information on Bio energy, identification of various non edible oil seeds, agronomic practices for these sources, Post-harvest technologies like de-cortication, oil expelling, treatment & uses of oils, Trans-esterification methods & efficiencies, R&D and extension services, to purchase oil seeds from Shimoga region and encourage the farmers to take up bio fuel activities.

Since 7 years, our center is actively engaged in fulfilling all objectives listed above by providing information to farmers, entrepreneurs, research students, end users and general public. Our center has conducted many awareness and training programs. Many research and development activities are being carried out at center. School and college students and teachers visit center regularly. We have collected around 16 tons of oil seeds from farmers during the year 2017-18. We conduct environmental awareness programmes and participate in all the major governmental and other institutional exhibitions.

Further, we have created research facilities for B.E, M.Tech. B.Sc. and M.Sc. Students and encourage them to take up research projects on various aspects of Biofuel and environment.


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1. Awareness programs

We have conducted around 32 Bio-Energy awareness programs in different Taluk and villages of Shimoga district. Awareness programs were arranged for village people, farmers, school students, NSS students and women society members. In all these awareness programs, presentation on Biofuel programme, display of various types of oil seeds, oil, cake and biodiesel, display of bio fuel plants would be arranged.

1. List of Awareness Programme Conducted:

Sl No	Date	Name	District / Taluk	Venue	strength
1	05.06.2017	World Environmental Day	shimoga	Gopi circle	300
2	10.08.2017	World Biofuel Day	Shimoga	Dr. B.R. Ambedkar Public Trust. Ragigudda.	200
3	19.08.2017	World Biofuel Day	Shimoga	JNNCE college Shimoga	100
4	19.08.2017	Parisara Jagruthi Dinacharane	shimoga	JNNCE college shimoga	400
5	07.09.2017	Biofuel Awareness program	Bhadravathi	Gramapanchayath Marashettihalli	200
6	27.11.2017	Biofuel Awareness program	Shimoga	Govt. School. Rechikoppa	50
7	28.11.2017	Bioenergy awareness program	Shimoga	JNNCE.Podar International School students	50
8	11.12.2017	Biofuel Awareness program	Shimoga	Samudaya Bhavana Shettikere	100
9	13.12.2017	Bioenergy awareness program	Shimoga	Sahyadri college NSS camp	170
10	14.12.2017	Bioenergy awareness program	sirsi	Kadave sreepadha kalyana mantapa	300
11	15.12.2017	Bioenergy awareness program	Shimoga	JNNCE.GHPS. students kommanalu	30
12	27.12.2017	Bioenergy awareness	Shimoga	Temple Varanda Govindapura	80
13	5-7.01.2018	Bioenergy awareness program	Shimoga	Rotary conference at PES Engineering College	1500
14	8.01.2018	Bioenergy awareness program	Shimoga	Konagavalli	100
15	8.01.2018	Bioenergy awareness program	Shimoga	JNNCE. Vikasa School Students	150
16	9.01.2018	Bioenergy awareness program	sringeri	Kunchru	80
17	9.01.2018	Bioenergy awareness Program	Shimoga	Muddinakoppa	80

Sl No	Date	Name	District / Taluk	Venue	strength
18	13.01.2018	Bioenergy awareness Program	Shimoga	JNNCE. GHPS. Students. Gadikoppa	100
19	18.10.2018	Bioenergy awareness Program	Shimoga	JNNCE. GHPS. students Holebenavalli	100
20	20.01.2018	Bioenergy awareness Program	shimoga	Shettihalli	150
21	06.02.2018	Bioenergy awareness Program	shimoga	JNNCE. GHPS. students mydolalu	100
22	09.02.2018	Bioenergy awareness program	shimoga	Vaderapura	250
23	14.02.2018	Bioenergy awareness program	Hosanagar	Kalluhalla, Gubbiga	150
24	15.02.2018	Bioenergy awareness Program	shimoga	Haihole	150
25	20.02.2018	Bioenergy awareness Program	Hosanagar	JNNCE, GMHPGS. Students	100
26	21.02.2018	Bioenergy awareness Program	Bhadravathi	JNNCE, G.U.H.P. School students	100
27	22.02.2018	Bioenergy awareness program	shimoga	JNNCE, G.H.P. School students	100
28	9-13.03.2018	Bioenergy awareness program	Shimoga	PU college students from shimoga and Chitradurga Davanagere.	140
29	14.03.2018	Bioenergy awareness program	Thirthahalli	JNNCE. KCGMHP school students	50
30	16.03.2018	Bioenergy awareness program	Shimoga	Govt. High School, sugur.	80
31	22.03.2018	Bioenergy awareness program	Shimoga	Sogane	165
32	25.03.2018	Bioenergy awareness program	Shimoga	Gondhichatnahalli	150


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5. Research Activities.

- ✓ Detoxification of oil cake.
- ✓ Design of high quality oil filtration process.
- ✓ Biodiesel washed water treatment plant process
- ✓ Performance study on CI engine using SVO blended with petrol as substituent fuel for CI engines Funded by KSCST
- ✓ Antimicrobial properties of Biofuel byproducts.
- ✓ Detoxification of oil cake.
- ✓ Antimicrobial properties of Biofuel byproducts.
- ✓ Production of organic manure (kitchen waste and leaf litter).
- ✓ STP Sludge treatment and its value addition.

6. Annual stock details:

Sl No.	Name	Procurement/ production In kg/lit.	Utilization/ sale Kg/lit.
1.	Pongamia pod	90.0	0.0
2	Pongamia seed	12539.5	14542.5
3	Karaveera	38.0	0.0
4	Waste coconut	173.0	145.0
5	Neem seed	2669.0	2669.0
6	Waste cooking oil	1210.7	790.0
7	Oil	2,573.5	2,082.5
8	Oil cake	10,107.5	9,705.0
9	Biodiesel	1,976.0	1567.0
10	Glycerine	178.0	93.0

7. Nursery Development & Plantations for the year 2016-2017

Sl no	Name of Plants	No of Samplings
1	Pongamia	500.0
2	Pongamia grafted plants	130.0
3	Jatropha	65.0
4	Karaveera	80.0
5	simarubha	150.0



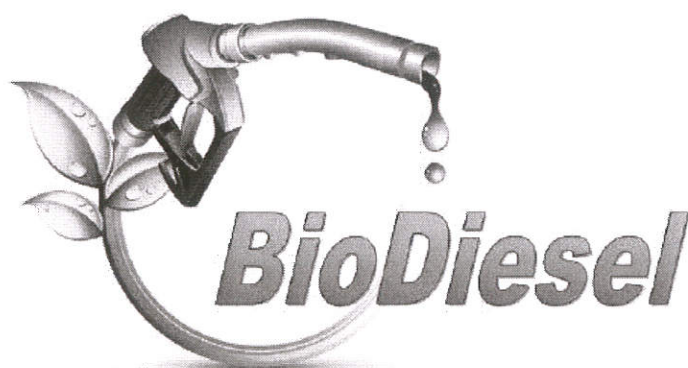
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DISTRICT BIO- FUEL RESEARCH, INFORMATION AND
DEMONSTRATION CENTER

**JAWAHARLAL NEHRU NATIONAL COLLEGE
ENGINEERINGSHIMOGA- 577204**

Funded and supported by Karnataka State Bioenergy Development Board, Govt. of Karnataka, Bangalore

ANNUAL REPORT 2018- 19



Dr. H.B. Suresh
Coordinator,
BRIDC, JNNCE, Shivamoga.


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Mr. Chethan S.G.
Co-Coordinator,
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BIOFUEL RESEARCH, INFORMATION AND DEMONSTRATION CENTRE

District Biofuel Research, Information, and Demonstration Center, JNNCE, Shimoga has been established in June 2011 by Karnataka State Bio-Energy Development Board, Govt. of Karnataka, Bangalore. This research and information center has been conceptualized as a showcase to study, promote and demonstrate all aspects related to bio-fuel. Through this center, it is possible to provide information on Bioenergy, identification of various non edible oil seeds, agro practices for these sources, Post-harvest technologies like seed collection, oil expelling, treatment, uses of oils, Trans-esterification process & efficiencies, R&D and extension services to purchase oil seeds from Shimoga region and encourage the farmers to take up biofuel activities. Since 8 years, BRID center is actively engaged in fulfilling all objectives listed above by providing information to farmers, entrepreneurs, research students, end users and the general public's. Many research and development activities are being carried out at the center. School, college students and teachers visit the center regularly. We have collected around 10 tons of oil seeds and also collected fried cooking oil from various hotels in Shimoga district during the year 2018-19. We conduct environmental awareness programs and participate in all the major government and other institutional exhibitions. Further, we have created research facilities for, M.Tech., B.E., M.Sc., B.Sc., B.Ed., Students and encourage them to take up research projects on various aspects of Bio-fuel and environment.


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1. Awareness programs

We have organized 33 Bio-energy awareness programs in various Taluk and villages around Shivamogga district. Awareness programs were arranged for village peoples, Farmers, school students, NSS students and also for women society members. In all awareness programs, presentation on bio-fuel program, display of various types of oil, seeds, oil cake, biodiesel and display of biofuel plants had been arranged.

1. List of awareness program conducted:

Sl. No.	Date	Name of the Program	Venue	Strength
1	06.05.18	NES Mela	JNNCE College Shimoga.	1000
2	05.06.18	World Environmental Day	JNNCE College Shimoga	80
3	05.06.18	World Environmental Day	Shimoga.	300
4	29.06.18	11 th Karnataka State Kannada Science Conference	Kuvempu Ranga Mandira, Shimoga.	1500
5	10.08.18	World Bio-Fuel Day	Akshara School And College, Shimoga.	150
6	13.08.18	Bio-Energy Awareness Program	Maravalli Village, Shikaripura.	60
7	30.08.18	Bio-Energy Awareness Program	Ananya Vidyapeeta Ashokanagara. Shimoga.	150
8	08.09.18	Parisara Jagruthi Dinacharane	JNNCE, Navule, Shimoga.	1000
9	15.09.18	Engineers Day	MESCOM Office KEB Circle, Basavanagudi, Shimoga	50
10	22.09.18	Bio-Fuel Awareness Program	SARA Samsthe Dombekoppa, Shimoga	130
11	15.10.18	Bio-Fuel Awareness Program	Okkaligara Samudaya Bavana, Shimoga	100
12	24.10.18	Parisara Jagruthi Karyagara	Shikaripura.	300
13	27.11.18	Bio-Fuel Awareness Program	Uluvi, Sorbha.	100
14	28.11.18	Bio-Fuel Awareness Program	Kargal, Sagar.	80
15	29.11.18	Bio-Fuel Awareness Program	Manchikoppa, Shimoga.	80
16	30.11.18	Bio-Fuel Awareness Program	Shikaripura	60
17	05.12.18	Bio-Fuel Awareness Program	Nelavagilu, Shikaripura	80
18	18.12.18	Bio-Fuel Awareness Program	Holehanasavadi, Shimoga.	60
19	19.12.18	Bio-Fuel Awareness Program	Holaluru, Shimoga.	80

20	20.12.18	Bio-Fuel Awareness Program	Haramagatta, Shimoga.	100
21	21.12.18	Bio-Fuel Awareness Program	Shimoga.	200
22	20.12.18	Bio-Fuel Awareness Program	Badravathi.	50
23	21.12.18	Bio-Fuel Awareness Program	Badravathi.	50
24	24.12.18	KisanDivaws	UAHS Campus, Shimoga.	100
25	12.01.19	Bio-Fuel Awareness Program	Edehalli, Shikaripura	60
26	16.01.19	Bio-Fuel Awareness Program	Ranjadakatte, Thirthahalli.	40
27	17.01.19	Bio-Fuel Awareness Program	Hole Bus Stand, Shimoga.	80
28	18.01.19	Bio-Fuel Awareness Program	Hole Bus Stand, Shimoga	60
29	28.01.19	Bio-Fuel Awareness Program	Sidlipura, Shimoga	120
30	24.02.19	Bio-Fuel Awareness Program	Hasudi, Shimoga	200
31	28.02.19	Bio-Fuel Awareness Program	Kuvempu Ranga Mandira, Shimoga	1200
32	13.03.19	Bio-Fuel Awareness Program	Chamenahall, Shimoga.	80
33	16.03.19	Bio-Fuel Awareness Program	Sompura, Shimoga.	120

1. Awareness program photos.



Plantation activity from CGTC centre on world environmental day (05.06.2018)



Dr. Sreepathi giving information about the importance to save environment (05.06.2018)

District Biofuel Demo and Research centre

Chirantana Green Technology Centre

Jawaharlal Nehru National College of Engineering, Shivamogga

Internship on “Waste to wealth Technologies”

(For Mechanical and Civil Engineering branches)

Course Objectives:

The Course focuses on Bioenergy in particular on exploration of biomass waste for energy. The course encompasses thermo chemical energy conversion, mechanical and chemical processes and bio chemical processes.

To build knowledge on conversion of biomass in to energy and to reduce waste generation, segregation of waste, effective handling and waste was recycling.

The course also provides knowledge of analysis of energy conversion processes involving biomass and auto mobile engines.

Course Contents:

- Sustainable energy resources
- Agronomy of oil seeds
- Chemistry of oils
- Biodiesel and bio ethanol
- Solid Waste Management
- Liquid Waste Management
- Combustion and gasification of biomass
- Waste plastic to oil
- Second and third generation Biofuel
- Value addition from by-products of Biofuel

Coordinator: Mr. Ravi Kumar B N., Asst. Professor, Mechanical Dept., JNNCE

Research Activity on Biofuel During 2018-2019:

- Characterization of Neem and Simaruba oil Blends
- Optimization of catalyst for biodiesel production from Neem oil and Simaruba oil Blends
- Production of bio-ethanol from fruit waste
- Bio-plastics from glycerol
- Performance and emission characteristics by using injection pressure using jatropha and Calophyllum blend with diesel.
- Characteristic study of four stroke diesel engine with SVO as a substitute fuel.

Annual Stock Details:2018-2019

Sl. No.	Name of particular	Procurement Kg/liter	Utilization/Sales Kg/ liter
1	Pongamia pod	270.0	270.0
2	Pongamia seed	8256.0	8256.0
3	Karaveera seed	103.0	42.0
4	Waste coconut	137.3	102.8
5	Waste cooking oil	1524.0	1170.0
6	Pongamia oil	2248.0	2719.0
7	Oil cake	9219.5	9219.5
8	Biodiesel	2590.0	2850.0
9	glycerine	195.0	67.0

- *Conservation Activities with the help of Government.*
- *Celebration of various nature festival*
- *Vanamohatsava program*

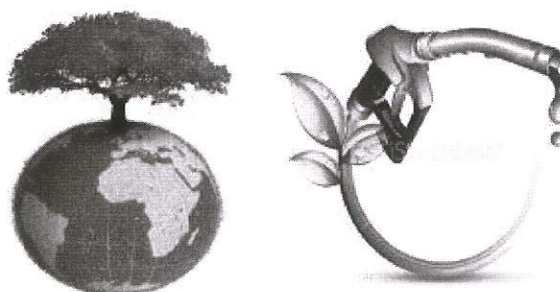
List of Renewable Energy Demonstration Devices

- **75kVA biomass gasifier with generator**
- **Flat and parabolic solar cookers**
- **LED and CFL solar lighting systems**
- **Solar street light**
- **High efficiency Chula**
- **Hand operated pump**
- **Electric vehicle**
- **Solar cycle**
- **Wind-Solar hybrid system**
- **Rain water harvesting system**
- **Kitchen waste biogas plant**
- **Biofuel Demonstration unit**

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Funded and supported by Karnataka State Bioenergy Development Board, Govt. of Karnataka, Bangalore

ANNUAL REPORT 2019- 2020



Save Planet Earth, Use Biofuel to reduce Global Warming

Dr. H.B. Suresh
Coordinator,
BRIDC, JNNCE, Shivamoga.

Mr. Chethan S.G.
Co-Coordinator,
BRIDC, JNNCE, Shivamoga.

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1. Awareness programs

We have organized 42 Bio-energy awareness programs in various Taluk and villages around Shivamogga district. Awareness programs were arranged for village peoples, Farmers, school students, NSS students and also for women society members. In all awareness programs, presentation on bio-fuel program, display of various types of oil, seeds, oil cake, biodiesel and display of biofuel plants had been arranged.

1. List of awareness program conducted:

Sl No	Date	Name of the Program	Venue	No. of Participants
1	25-5-19	Biofuel Awareness at BRIDC, Visit by JNNCE students	BRIDC, JNNCE, Shimoga	120
2	5-6-19	Planting the trees in the campus on World Environmental Day	JNNCE Campus	45
3	25-6-19	Awareness at BRIDC, Visit by PDO's and Elected Members of Grama Panchayath and Formers in Association with Zilla Panchayath	BRIDC, JNNCE, Shimoga	65
4	8-7-19	Technical Talk on Biofuel Conversion Technologies	DSDN Polytechnic, JNNCE Campus, Shimoga	120
5	9-7-19	Biofuel Awareness at BRIDC, Visit by DSDN Polytechnic students	BRIDC, JNNCE, Shimoga	90
6	16-7-19	Biofuel Awareness at BRIDC, Visit by Taluk shree shankthi Block Society, Madhugiri taluk, Tumkur District.	BRIDC, JNNCE, Shimoga	20
7	23-7-19	Biodisel use start Zill Panchayat Vechicle	Zill Panchayat Shimoga	10
8	27.07.19	Technical Talk on Biofuel Conversion Technologies and Responsibilities of Students in Environmental Conservation	Govt. Degree College, BH Road, Shimoga	50
9	30-7-19	Biofuel Awareness Program for Sahyadri Science College students	BRIDC, JNNCE, Shimoga	10
10	05-8-19	Technical talk on Global Warming and Climate Change is delivered by Dr. L.K. Sreepathi . Dr. H.B. Suresh delivered by talk on Biofuel, during the workshop. National Institute of Technology, Surathkal, Dakshina Kannada.	National Institute of Technology (NITK), Surathkal, Dakshina Kannada	80

11	15-8-19	Planting the trees in the campus on World Bio-fuel Day in Association with deistic social Forest Dept,	JNNCE Campus	650
12	19-8-19	Technical talk on Biofuel for First year students during the Induction Program.	BRIDC, JNNCE, Shimoga	450
13	14-9-19	Biofuel awareness program Stall Demo for Shimoga dist High School/College Student During the Parisara Jagrthi Dinacharane(PJD)	Ananya Mantapa JNNCE, Shimoga	400
14	16-9-19	Biofuel awareness program Stall Demo for Karnataka Janapada Parishath Mambars	Thirtha Remeshwara Balaguthi Namti Taluk	200
15	18-9-19	Acharya tulsi National college students visited BRIDC, Shimoga	BRIDC, Shimoga	100
16	26-9-19	JNNCE 7 th Sem Mechanical Engineering students visited BRIDC, Shimoga	BRIDC, Shimoga	60
17	24-10-19	Podhr International School students visited BRIDC, Shimoga	BRIDC, Shimoga	15
18	5-11-19	Addichuchnagire School students visited BRIDC, Shimoga	BRIDC, Shimoga	10
19	6-11-19	JNNCE First sem Civil students visited BRIDC, Shimoga	BRIDC, Shimoga	60
20	6-11-19	JNNCE 7 th Sem Mechanical Engineering students visited BRIDC, Shimog	BRIDC, Shimoga	60
21	8-11-19	JNNCE 7 th Sem Mechanical Engineering students visited BRIDC, Shimoga Solid waste, Gasifier, Biogas,	BRIDC, Shimoga	60
22	9-12-19	Environmental Conservation Biofuel awareness program Stall Demo for Kuvempu shatmanotswwa mahavidhylya NSS Students is delivered by Dr. H.B. Suresh	Sree Rama Nagar Bhadravathi	110
23	19-12-19	Technical Talk on delivered by Dr. L.K. Sreepathi . Dr. H.B. Suresh delivered A talk on Biofuel . Mr chetha & Lokesh to Hand Made soap Phenyl training for Kastruba Woman College students.	BRIDC, Shimoga	18
24	23-12-19 To 27-12-19	Biofuel awareness program Stall Demo for DST Inspire Inter ship Camp Students,	MBA/MCA Auditorium JNNCE Shimoga	150
25	28-12-19	Technical talk on Rain Water harvesting delivered by Dr. L.K. Sreepathi . Dr. H.B. Suresh delivered by talk on Biofuel for Kastruba Woman College NSS students.	Pillangiri	120
26	31-12-19	Govt Pu college & High School Thirthalli Govt Pu college & High School students visited BRIDC, Shimoga	BRIDC, Shimoga	48
27	31-12-19	Govt Girl Pu college & High School, New Town Bhadravathi students visited BRIDC, Shimoga	BRIDC, Shimoga	35
28	17-01-2020	MHIRD With Association Biofuel Awareness program	Taluk Panchayat	150

		at Taluk Panchayat Soraba for SIG Group Member Mr Lokeshappa delivered A talk on Biofuel .	Soraba	
29	20-1-2020	Sree Sree Ravishankar Vidya Mandira School Student study Tour visited BRIDC, Shimoga	BRIDC, Shimoga	75
30	21-1-2020	Vikasa High School Student Visitted BRIDC, Shimoga	BRIDC, Shimoga	150
31	25-01-2020	Rotary Mid towan Member Visitted BRIDC, Shimoga	BRIDC, Shimoga	30
32	28-01-2020	MHIRD With Association Biofuel Awareness program at Doda Mathli Village for SIG Group Member Mr Lokeshappa delivered A talk on Biofuel .	Doda Mathli Shimoga Taluk	80
33	30-01-2020	MHIRD With Association Biofuel Awareness program at T P Member Hall Thirthalli for SIG Group Member Mr Lokeshappa delivered A talk on Biofuel .	Taluk Panchayat Thirthalli	100
34	12-02-2020	JNNCE Engg College Indication Program Dr. H.B. Suresh delivered by talk on Biofuel	Ad Block Seminar hall JNNCE	120
35	13-02-2020 To 15-02-2020	KTES-2020Karnataka TECH Entrepreneurship Summit-2020 program arranged at JNNCE With Association Biofuel Awareness Stall	MBA/MCA Auditorium JNNCE Shimoga	400
36	15-02-2020	PESIT Engg College Indication Program Dr. H.B. Suresh delivered by talk on Biofuel	PESITM Shimoga	120
37	16-02-2020	JNNCE NSS program at Navele Basavapura Dr. H.B. Suresh delivered by talk on Biofuel	Navele Basavapura	150
38	18-02-2020	NPS High School Student Visitted BRIDC, Shimoga	BRIDC, Shimoga	150
39	28.02.19	KRVP & PES PU College arranged National Science Day arranged at PESITM With Association Biofuel Awareness Stall	PESITM Shimoga	250
40	05.03.2020	Govt High School Abblagere Student Visitted BRIDC, Shimoga	BRIDC, Shimoga	60
41	17.03.2020	JNNCE Technical staff	BRIDC, Shimoga	60
42	18.03.2020	JNNCE Supporting Staff	BRIDC, Shimoga	45

World International Bio-fuel Day- 2019

Bio-energy Research Information and Demo Center had organized World Bio-fuel Day- 2018 at Akshara school and college, Shivamogga on 10.08.2018 in association with Chaitanya Rural Development Society, Shivamogga. The program was inaugurated through the planting of Bio-fuel plants by Sri Ashok NayakKB, MLA, Shimoga rural. After inauguration Sri Ashok Nayak K.B. addressed the students and women society members to promote and accelerate to grow Bio-fuel plants and collection of Bio-fuel seed and also support to use biodiesel as a fuel for Zilla panchayath vehicles. The program conducted successfully with the presence of Bhadrish. B. T, Dr. H. B Suresh, Coordinator BRIC, Shimoga, Dr. L K Sreepathi, Dr. H. R Mahadevswami, Principal, JNNCE, Shivamoga.

After inauguration, Dr. H B Suresh delivered a talk on bioenergy source collection, biodiesel production, usage of by-product etc.

Dignitaries visited at BRIDC JNNCE, Shivamogga.

Sl.No	Dignitaries Name	Profession
Sl. No.	Date	Name & Address
1	5-4-19	MR. Dinesh Kumar D.K Karnataka Renewable Energy Development Board, Mysore
2	5-4-19	Mr. Mahesh S Kotian AEA, Shimoga
3	29-4-19	Mr. Farazuddin Khan (Alumni-2005 Mechanical) Area Sales Manager (South India), Mars International Limited.
4	29-04-19	Mr. Santosh Naik (Alumni-Electrical) Executive Engineer, MESCOM, Shimoga
5	29-04-19	Smt. Hamsa (Alumni-Electrical) Assistant Executive Engineer, MESCOM, Shimoga
6	16-5-19	Dr. R. Ananda Kumari, Principal, Siddaganga College of Arts and Science, Tumkur.
7	29-6-19	Mr. Devanand Assistant Professor, Sustainable Economics, Henaga, Belagavi
8	15-07-19	Mr. H.N. Sreekanth Research Scholar, VTU, Bangalore
9	15-7-19	Dr. Prathima Manohar, The Urban Vision, Mumbai
10	30-7-19	Dr. Nagaraja Parisara, Professor and Head, Department of Environment Science, Sahyadri Science College, Shimoga.
11	3-7-19	Alumni's, Year 2002 Passed out from Mechanical Engineering Branch, Visited BRIDC.
12	15-8-19	Deesayee DCF, & ACF, and forest officers
13	14-9-19	Sree Prasana. Social chithakur Shimoga. Sree T.S. Mahadeva Swamy Ret MPM Bhadravathi.
14	23-9-19	Dr Sanjeev nayak L&T Technology Services Bangalore
15	1-10-19	Dr R.V. Praveena Gowda BE, ME, Phd, Principal The Oxford College Of Engineering Bangalore.
16	1-10-19	Ashwini L Udupa TaTa Power Solar Systems Limited.
17	25-11-19	G.V. Sukumar, Chief Technical Officer, PRAPATHI Chennai. Vani Sukumar Chief Executive Officer, PRAPATHI Chennai.
18	22-11-19	NBA Expert committee Member Visited
19	29-12-19	Dr Harish, Head of IEEE Asia Europe activities, Mysore,
20	10-1-2020	Dr Shanmukha Nagaraj Dean, Academic RVCE Bangalore
21	19-1-2020	Smt .Subhalakshmi Krishnamoorthy , Deputy Director –ISRO, Bengaluru

Research Activity on Biofuel During 2019-2020:

- Characterization of Neem and Simaruba oil Blends
- Optimization of catalyst for biodiesel production from Neem oil and Simaruba oil Blends
- Production of bio-ethanol from fruit waste
- Bio-plastics from glycerol
- Performance and emission characteristics by using injection pressure using jatropha and Calophyllum blend with diesel.
- Characteristic study of four stroke diesel engine with SVO as a substitute fuel.

Annual Stock Details:2019-2020

Sl. No.	Name of particular	Procurement Kg/liter	Utilization/Sales Kg/ liter
1	Pongamia pod	166.0	136.0
2	Pongamia seed	6251.5	6101.5
3	Karaveera seed	8.4	58.4
4	Waste coconut	30.5.	0.0
5	Waste cooking oil	3123.0	3760.0
6	Pongamia oil	1473.5	829.5
7	Oil cake	4031.0	3892.0
8	Biodiesel	3650.0	3609.5
9	glycerine	192.0	68.0

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**JAWAHARLAL NEHRU NEW
COLLEGE ENGINEERING**

**DISTRICT BIO - FUEL RESEARCH, INFORMATION AND
DEMONSTRATION CENTER SHIMOGA- 577204**

Funded and supported by Karnataka State Bioenergy Development Board, Govt. of Karnataka, Bangalore

ANNUAL REPORT 2020- 2021



Save Planet Earth, Use Biofuel to reduce Global Warming




**Dr. H.B. Suresh
Coordinator,
BRIDC, JNNCE, Shivamoga.**

**Mr. Chethan S.G.
Co-Coordinator,
BRIDC, JNNCE, Shivamoga.**

**Principal
Jawaharlal Nehru New
College of Engineering (JNNCE)
Shivamogga.**

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Principal
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College of Engineering (JNNCE)
Shivamogga.

BIOFUEL RESEARCH, INFORMATION AND DEMONSTRATION CENTRE

District Biofuel Research, Information, and Demonstration Center, JNNCE, Shimoga has been established in June 2011 by Karnataka State Bio-Energy Development Board, Govt. of Karnataka, Bangalore. This research and information center has been conceptualized as a showcase to study, promote and demonstrate all aspects related to bio-fuel. Through this center, it is possible to provide information on Bioenergy, identification of various non edible oil seeds, agro practices for these sources, Post-harvest technologies like seed collection, oil expelling, treatment, uses of oils, Trans-esterification process & efficiencies, R&D and extension services to purchase oil seeds from Shimoga region and encourage the farmers to take up biofuel activities. Since 8 years, BRID center is actively engaged in fulfilling all objectives listed above by providing information to farmers, entrepreneurs, research students, end users and the general public's. Many research and development activities are being carried out at the center. School, college students and teachers visit the center regularly. We have collected around 6 tons of oil seeds and also collected fried cooking oil from various hotels in Shimoga district during the year 2019-20. We conduct environmental awareness programs and participate in all the major government and other institutional exhibitions. Further, we have created research facilities for, M.Tech., B.E., M.Sc., B.Sc., B.Ed., Students and encourage them to take up research projects on various aspects of Bio-fuel and environment.


Principal
Jawaharlal Nehru New
College of Engineering (JNNCE)
Shivamogga.


1. Awareness programs

We have organized 9 Bio-energy awareness programs in various Taluk and villages around Shivamogga district. Awareness programs were arranged for village peoples, Farmers, school students, NSS students and also for women society members. In all awareness programs, presentation on bio-fuel program, display of various types of oil, seeds, oil cake, biodiesel and display of biofuel plants had been arranged.

Biofuel Activities Report

Details of Awareness Program from 01.04.2020 to 31.03.2021

Sl No	Date	Name of the Program	Particular	Venue	No. of Participants
1	14-07-2020	Biofuel Awareness program	Planting of Saplings at Kuvempu Nagara Area, Opp. to JNNCE.	Kuvempu Nagara, Ragigudda, Shimoga	30
2	10-08-2020	World International Biofuel day celebration	Celebration of World Biofuel day-2020 along with plantation activity by the guest at JNNCE campus	JNNCE Campus Premises	50
3	15-10-2020	Biofuel Awareness program	Awareness about biofuel resources and its importance to the Principal and Staff Govt. Pu College Nyamathi,	BRIDC JNNCE	10
4	23-01-2021	Biofuel Awareness program	Dr H.B. Suresh Delivered Talk on Biofuel awareness & renewable resource to farmers of Kadekal	Kadekal	60
5	25-01-2021	Biofuel Awareness program	Dr H.B. Suresh Delivered Talk on Biofuel awareness & renewable resource to farmers of Bedarahosalli	Bedarahosalli	70
6	28-01-2021	Biofuel Awareness program	Dr H.B. Suresh Delivered Talk on Biofuel awareness & renewable resource to farmers of Holaluru	Holaluru	60
7	24-03-2021	Biofuel Awareness program	Dr H.B. Suresh Delivered Talk on Biofuel awareness & renewable resource to farmers of Mathru.	Mathru.	50
8	25-03-2021	Biofuel Awareness program	Dr H.B. Suresh Delivered Talk on Biofuel awareness & renewable resource to farmers of	Veeranabenavalli.	50


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Shivamogga.

- *Nature camps and trekking.*
- *Surveys of various resources.*
- *Open discussions on current nature threats, and Solutions.*
- *Invited talks from various resourceful persons.*
- *Nature Games.*
- *Conservation Activities with the help of Government.*
- *Celebration of various nature festival*
- *Vanamohatsava program*

List of Renewable Energy Demonstration Devices

- **75kVA biomass gasifier with generator**
- **Flat and parabolic solar cookers**
- **LED and CFL solar lighting systems**
- **Solar street light**
- **High efficiency Chula**
- **Hand operated pump**
- **Electric vehicleSolar cycle**
- **Wind-Solar hybrid system**
- **Rain water harvesting system**
- **Kitchen waste biogas plant**
- **Biofuel Demonstration unit**
- **75kVA biomass gasifier with generator**
- **Flat and parabolic solar cookers**
- **LED and CFL solar lighting systems**
- **Solar street light**
- **High efficiency Chula**
- **Hand operated pump**
- **Electric vehicle**

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ANNUAL REPORT 2021-2022



Save Planet earth, Use Biofuel to reduce Global Warming

Dr. H. E. Suresh, Coordinator,
BRIDC, JNNCE, Shivamoga.

Mr. Chethan S.G.
Co-Coordinator,
BRIDC, JNNCE, Shivamoga.

Principal
Jawaharlal Nehru New
College of Engineering (JNNCE)
Shivamogga.

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BIOFUEL RESEARCH, INFORMATION AND DEMONSTRATION

CENTRE

District Biofuel Research, Information, and Demonstration Center, JNNCE, Shimoga has been established in June 2011 by Karnataka State Bio-Energy Development Board, Govt. of Karnataka, Bangalore. This research and information center has been conceptualized as a showcase to study, promote and demonstrate all aspects related to bio-fuel. Through this center, it is possible to provide information on Bioenergy, identification of various non edible oil seeds, agro practices for these sources, Post-harvest technologies like seed collection, oil expelling, treatment, uses of oils, Trans-esterification process & efficiencies, R&D and extension services to purchase oil seeds from Shimoga region and encourage the farmers to take up biofuel activities. Since 8 years, BRID center is actively engaged in fulfilling all objectives listed above by providing information to farmers, entrepreneurs, research students, end users and the general public's. Many research and development activities are being carried out at the center. School, college students and teachers visit the center regularly. We have collected around 6 tons of oil seeds and also collected fried cooking oil from various hotels in Shimoga district during the year 2019-20. We conduct environmental awareness programs and participate in all the major government and other institutional exhibitions. Further, we have created research facilities for, M.Tech., B.E., M.Sc., B.Sc., B.Ed., Students and encourage them to take up research projects on various aspects of Bio-fuel and environment.

Biofuel & Chiranthana Activities Report

Details of Awareness Program April 2021 to March 2022:

Sl No	Date	Name of the Program	Venue	No. of Participants
1	10-08-2021	Planting the tree at Jnnce campus arranged world biofuel day	Jnnce shimoga	50
2	27-08-2021	Dr H.B. Suresh Delivered Talk on Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Nesara Center for Rural Development ®	District Training Center Shimoga	60
3	27-08-2021	Mr Chethan & Lokeshappa u Delivered Talk on Biofuel awareness Demonstration for the Gram panchayat women SIG Group association with Nesara Center for Rural Development ®	Jnnce shimoga	40
4	31-08-2021	Dr Sreepathi L K & Lokeshappa u Delivered Talk on Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Chyathanaya Rural Development Society®	Jnnce shimoga	40
5	03-08-2021	Dr H.B.Suresh Delivered Talk on Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Poojacha charitable Trust ®	District Training Center Shimoga	40
6	03-08-2021 A/N	Dr Ravikumar & Lokeshappa u Delivered Talk on Biofuel awareness Demonstration for the Gram panchayat women SIG Group association with Poojacha charitable Trust ®	Jnnce shimoga	40
7	14-09-2021	Dr H.B. Suresh Delivered Talk on Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Aasare social services Center®	District Training Center Shimoga	40
8	14-09-2021 A/N	Dr H.B. Suresh & Lokeshappa u Demonstration for the Gram panchayat women SIG Group association with Aasare social services Center®	BRIDC Jnnce shimoga	40
9	21-09-2021	Dr H.B Suresh MR Chethan & Lokeshappa u Delivered Talk on Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Chyathanaya Rural Development Society®	BRIDC Jnnce shimoga	40
10	19-10-2021	Dr H.B.Suresh Delivered Talk on Biofuel awareness & Demonstration for the Gram	UAS	40

		panchayatwomenSIGGroupassociationwith Aasare social services Center®	shimoga	
11	19-10-2021 A/N	Dr H.B. Suresh Delivered Talk on Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Aasare social services Center® NGO	BRIDC Jnnce shimoga	40
12	27-10-2021	Dr H.B. Suresh Delivered Talk on Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Poojacharitable Trust® NGO	ADBBlockSeminar hall Jnnce shimoga	40
13	27-10-2021 A/N	MRChethan&LokeshappauDeliveredTalkon Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Poojacharitable Trust®	BRIDC Jnnce shimoga	40
14	09-11-2021	Karnataka State biofuel DevelopmentBoardManaging Director Sri K R Rudrappa KGSVisited BRIDC, JNNCE	BRIDC Jnnce shimoga	02
15	27-11-2021	LondonVerzencompanyMrManjunatha Mrs Samanvitha Visited BRIDC, JNNCE	BRIDC Jnnce shimoga	02
16	30-11-2021	Dr H.B. Suresh Delivered Talk on Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Aasare social services Center®NGO	UAS shimoga	40
17	30-11-2021 A/N	MR Chethan & Lokeshappa u Demonstrationfor the Gram panchayat women SIG Group association withAasare social services Center®	Jnnce shimoga	40
18	30-12-2021	Lokeshappa u Demonstration for the Gram panchayat women SIG Group association with ChyathanayaRural Development Society®.	Jnnce shimoga	40
19	12-01-2022	GovthighSchoolstudentKomanaluVisited BRIDC, JNNCE.	BRIDC Shimoga	40
20	17-02-2022	Biofuelawareness&Demonstrationforthe GrampanchayatwomenSIGGroupassociation	BRIDC	30

		with Chyathanaya Rural Development Society®.	Shimoga	
21	23-02-2022	Dr H.B. Suresh Delivered Talk on Biofuel awareness & Demonstration for the Sahyadri collegeNSS Program at konagavalli village	konagavalli	100
22	04-03-2022	Dr H.B. Suresh Delivered Talk on Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Aasare social services Center®NGO.	UAS shimoga	40
23	04-03-2022	Dr H.B. Suresh Lokeshppa.u Biofuel awareness & Demonstration for the Gram panchayat women SIG Group association with Aasare social services Center®NGO.	BRIDC Shimoga	40
24	22-03-2022	Dr H.B. Suresh Lokeshppa.u Biofuel awareness & Demonstration for the First year BE Student	BRIDC Shimoga	65
25	25-03-2022	Dr Ravikumar & Lokeshappa u Demonstration for the First BE Students, JNNCE	BRIDC Shimoga	60
26	28-03-2022	Deepankar & Shivanandappa Demonstration for the First BE Students, JNNCE	BRIDC Shimoga	60

Biofuel & Chiranthana Activities Photo

1. Awareness programs

We have organized 23 Bio-energy awareness programs in various Taluk and villages around Shivamogga district. Awareness programs were arranged for village peoples, Farmers, school students, NSS students and also for women society members. In all awareness programs, presentation on bio-fuel program, display of various types of oil, seeds, oil cake, biodiesel and display of biofuel plants had been arranged.

Annual Stock Details:2021-2022

Stock Details:1-04-2021 to 31-01-2022

Sl. No	Name of particular	Procurement Kg/liter	Utilization/Sales Kg/ liter
1	Pongamia pod	0.0	0.0
2	Pongamia seed	246.0	246.0
3	Waste coconut	0.0	0.0
4	Waste cooking oil	1762.0	1520.0
5	Pongamia oil	40.0	122.0
6	Oil cake	150.0	150.0
7	Biodiesel	1261.0	1400.0
8	Glycerine	54.0	456.0