

**Report
on
Workshop on
Biomass-Derived Fuels and Chemicals:
Paving the path to Carbon Neutrality**



**Organized by Department of Chemistry
[Funded by DBT Star College Scheme]
Morigaon College,
Morigaon, Assam**

Arunima Sarma

Head
Department of Chemistry
Morigaon College

**Report
on
Workshop on**

**Biomass-Derived Fuels and Chemicals: Paving the path to Carbon Neutrality
Organized by Department of Chemistry, Morigaon College, Morigaon, Assam**

Funded by DBT Star College Scheme

Date: 17th August. 2024

Time: 12:00 PM onward

Agenda:

1. Inaugural Speech by Dr. Lila Kanta Barthakur, Principal, Morigaon College.
2. Introduction of Resource Person by Dr. Arunima Sarma,
3. Moderator of the workshop by 5th semester Honours Student Miss Prastuti Das.
4. Brief perspectives of the DBT star College Scheme delivered by Dr. Dhananjay Kushre, Vice Principal Morigaon College, Morigaon
5. Technical Session by Dr. Parikhit Gogoi (Professor of Chemistry, Department of Chemistry, Nagaon College, Autonomous)
6. Discussion Session
7. Vote of thanks by Dr. Rituraj Das, Assistant Professor, Department of Chemistry

Objectives of the Workshop:

1. To introduce participants to the concept of biomass as a renewable and sustainable feedstock for the production of fuels and value-added chemicals.
2. To create awareness about the role of biomass-derived fuels and chemicals in reducing greenhouse gas emissions and achieving carbon neutrality.
3. To provide fundamental knowledge of various biomass conversion technologies, including biochemical and thermochemical processes.
4. To familiarize participants with the concept of biorefineries and their importance in the development of a circular bioeconomy.
5. To discuss recent advancements, challenges, and future prospects in biomass-based energy and chemical production.
6. To highlight the environmental, economic, and societal benefits of replacing fossil-based resources with biomass-derived alternatives.
7. To encourage interdisciplinary thinking and research interest among students and faculty in the field of sustainable energy and green chemistry.
8. To promote awareness of national and global initiatives and policies supporting biomass utilization and carbon-neutral technologies.

No. of participants: 142

About the Workshop

The workshop commenced with an inaugural session that set a constructive and academic tone for the event. The **Inaugural Speech** was delivered by **Dr. Lila Kanta Barthakur, Principal, Morigaon College**, who emphasized the importance of sustainable technologies and the role of academic institutions in promoting research and awareness on biomass-derived fuels and chemicals for achieving carbon neutrality.

This was followed by the **introduction of the resource person** by **Dr. Arunima Sarma**, who highlighted the academic credentials and research contributions of the invited expert, thereby acquainting the participants with the significance of the technical session.

The workshop was smoothly coordinated by the **Moderator, Miss Prastuti Das, a 5th Semester Honours student**, whose active involvement reflected the encouragement of student participation in academic events.

Subsequently, **Dr. Dhananjoy Kushre, Vice Principal, Morigaon College**, delivered a

session providing **brief perspectives on the DBT STAR College Scheme**. He elaborated on the objectives of the scheme and its role in strengthening undergraduate science education through research exposure, infrastructure development, and skill enhancement.

The **technical session** was conducted by **Dr. Parikhit Gogoi, Professor of Chemistry, Department of Chemistry, Nagaon College (Autonomous)**. His lecture offered in-depth insights into biomass-derived fuels and chemicals, recent technological advancements, and their relevance in the context of carbon neutrality. The session was highly informative and well received by the participants.

An interactive **discussion session** followed, during which participants actively engaged with the resource person, clarifying concepts and sharing views on sustainable energy solutions.

The workshop concluded with a **vote of thanks** proposed by **Dr. Rituraj Das, Assistant Professor, Department of Chemistry**, who expressed gratitude to the dignitaries, speakers, organizers, and participants for the successful conduct of the workshop.

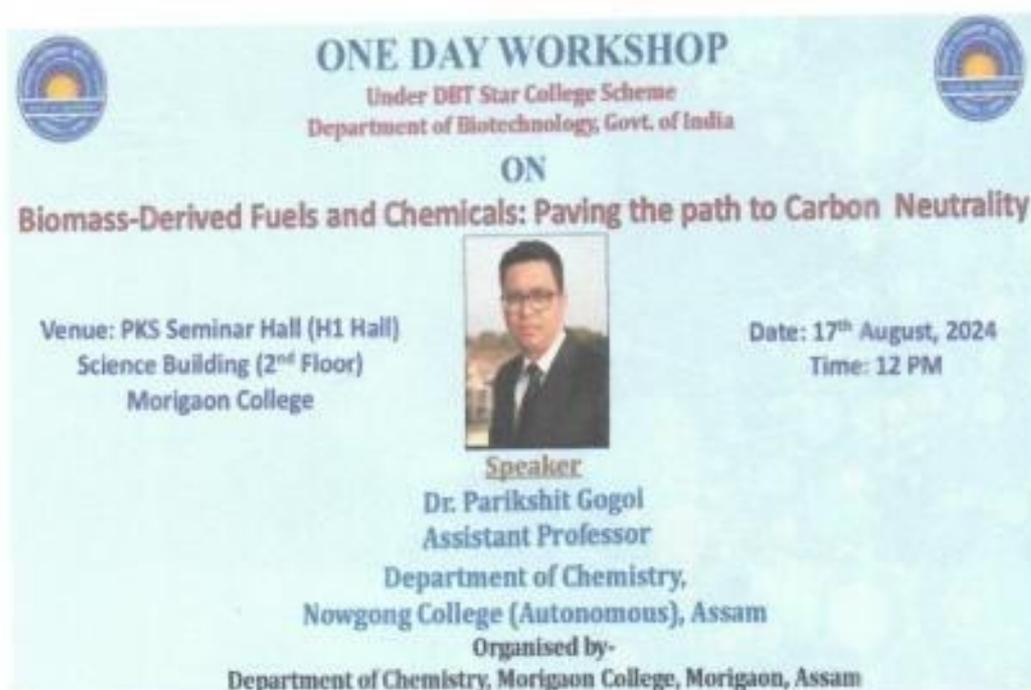
Outcome of the Workshop

The workshop successfully enhanced the awareness and understanding of participants regarding the significance of biomass-derived fuels and chemicals in addressing global energy and environmental challenges. Participants gained clear insights into the role of renewable biomass resources as sustainable alternatives to fossil fuels and their contribution to achieving carbon neutrality. The technical deliberations helped students and faculty understand various biomass conversion technologies, including biochemical and thermochemical pathways, and their practical applications.

The sessions highlighted the concept of biorefineries and demonstrated how integrated production of fuels, chemicals, and value-added products can support a circular bioeconomy. Participants developed an appreciation of the environmental benefits, such as reduction in greenhouse gas emissions and waste valorization, along with the socio-economic advantages including energy security and rural development. The discussion on recent advancements and challenges encouraged critical thinking about sustainable feedstock utilization and process optimization.

The workshop also motivated undergraduate students to explore interdisciplinary research areas in green chemistry, renewable energy, and environmental sustainability. Exposure to national initiatives like the DBT STAR College Scheme further inspired participants to engage in research-oriented learning and innovation. Overall, the workshop fostered scientific curiosity, strengthened conceptual clarity, and reinforced the importance of biomass-based solutions in building a sustainable and carbon-neutral future.

Photo Gallery



ONE DAY WORKSHOP
Under DBT Star College Scheme
Department of Biotechnology, Govt. of India

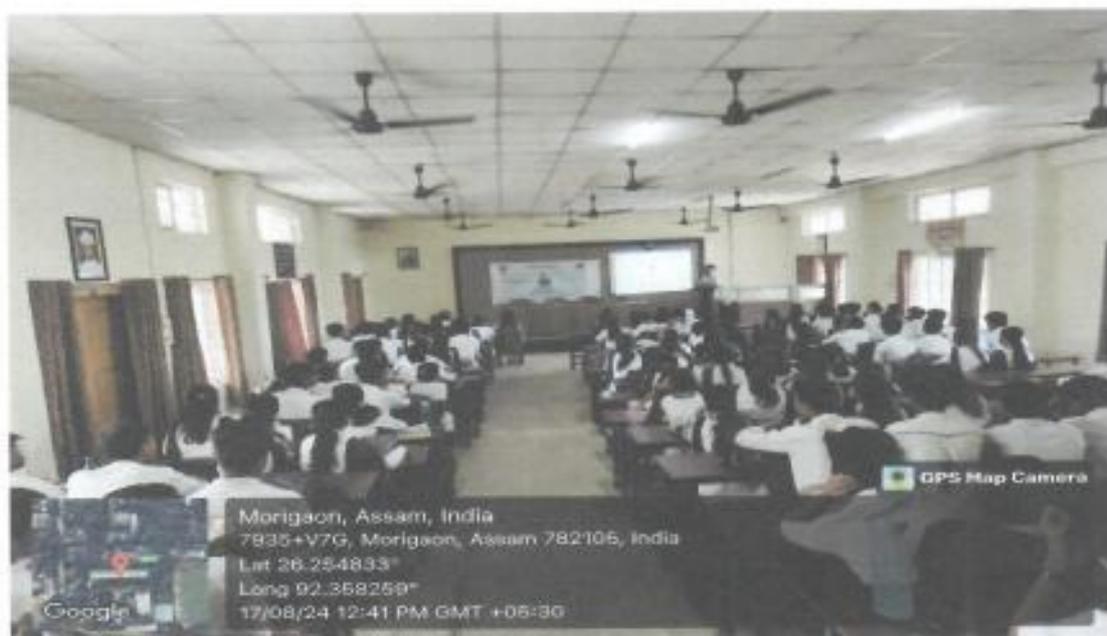
ON
Biomass-Derived Fuels and Chemicals: Paving the path to Carbon Neutrality

Venue: PKS Seminar Hall (H1 Hall)
Science Building (2nd Floor)
Morigaon College

Date: 17th August, 2024
Time: 12 PM



Speaker
Dr. Parikshit Gogol
Assistant Professor
Department of Chemistry,
Nowgong College (Autonomous), Assam
Organised by-
Department of Chemistry, Morigaon College, Morigaon, Assam







Departmental workshop
under DBT star college scheme

Topic - Biomass derived Fines and chemicals:
tracing the path to carbon neutrality

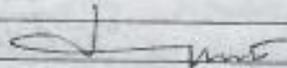
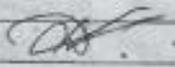
Resource person - Dr. Parikshit Nagai
Asst. Professor, Nongong college
Autonomous.
Parikshit Gosh

Date - 17/08/2024

Time - 12:00 PM

Signature

Designation

- | | | |
|------------------|--|---|
| 1) L. K. Panthia |  | Principal |
| 2) Dr. D. Kumar |  | Vice Principal &
CO-ordinator of DBT
S.C.C. |
| 3) Purnima Das |  | HOD, Chemistry |
| 4) Jagata Baruah | | Asst. Professor |
| 5) Purnoy Das | | Asst. Professor |

List of Participants

S/N	Students Name	2 nd /sem	Signature
34	Minakshi Das	H.S 3 rd year	Minakshi Das
35	Selima Akterun	H.S 2 nd Year	Selima Akterun
36	Shabina Akterun	H.S 1 st year	Shabina Akterun
37	Abicire Rahman	B.S.C 1 st Sem	Abicire Rahman
38	Bitupan Bordoloi	B.S.C 1 st sem	Bitupan Bordoloi
39	Aranab Jyoti Bhuyan	B.S.C 1 st sem	Aranab Jyoti Bhuyan
40	Masum Uddud Ullah	B.S.C 1 st sem	Masum Uddud Ullah
41	Kapil Dasari Agui	B.S.C 1 st sem	Kapil Dasari Agui
42	Abhijit Nath	B.S.C 1 st sem	Abhijit
43	Dhara Anu Choudhary	H.S 1 st year	Dhara Anu Choudhary
44	Suryaj Bordoloi	H.S 1 st year	Suryaj
45	Ranvir Kumar Bopari	H.S 1 st year	Ranvir Kumar Bopari
46	Arulendra Kumar Deka	H.S 1 st year	Arulendra K. Deka
47	Ravraj Tomuli	H.S 1 st year	Ravraj Tomuli
48	Partha Pradum Bora	H.S 1 st year	Partha Pradum Bora
49	Bishant Dutta	H.S 1 st year	Bishant Dutta
50	Humayun Kabir	H.S 1 st year	Humayun Kabir
51	Fatima Sultan	H.S 1 st year	Fatima Sultan
52	Jenifa Masum Khatki	H.S 1 st year	Jenifa Masum Khatki
53	Mushkan Begum	H.S 1 st year	Mushkan Begum
54	Gayatri Bordoloi Das	H.S 1 st year	Gayatri Bordoloi
55	Gourci Patore	H.S 1 st year	Gourci Patore
56	Sri Nikita Saikia	H.S 1 st year	Nikita Saikia
57	Puja Bordoloi	H.S 1 st year	Puja Bordoloi
58	Arman Papan	H.S 1 st year	Arman Papan
59	Chinman Hussain	H.S 1 st year	Chinman Hussain
60	Shiv Shankar Sankar Das	H.S — "	Shiv Sankar Das
61	Prabal Nath	B.S.C 1 st sem	Prabal Nath
62	Pancha Jyoti Das	B.S.C 1 st sem	Pancha Jyoti Das
63	Prantik Deka	B.S.C 1 st sem	Prantik
64	Pransati Nath	H.S 1 st year	Pransati Nath
65	Niha Bora	H.S 1 st year	Niha Bora
66	Kuki Patore	H.S 1 st year	Kuki

Sl No	Name	class	Signature
134	Prasuti Das	BSc 5th sem	P. Das
135	Kuhi Bordoloi	"	Kuhi Bordoloi
136	Rimi Nath	"	R. Nath
137	Susatika Phangchang	"	B. P
138	Sukanya Devi	"	S. Devi
139	Bishal Nath	"	B. Nath
140	Harsika Deba	"	H. Deba
141	Janmajal Nath	"	J. Nath
142	Sagan Nath	"	S. Nath



Estd. 1964

MORIGAON COLLEGE
DEPARTMENT OF CHEMISTRY
Morigaon 782105, Assam (INDIA)

Dr. Arunima Sarma, M.Sc., Ph.D(Gau), HoD

9435147228(mobile)

Email. mcchem2021@gmail.com

Date: 13/08/2024

No. DC/MC/2024/22

To

The principal,

Morigaon College, Morigaon

Assam, 782105

Subject: Seeking permission to conduct a workshop on 17-08-2024 under DBT Star College Scheme.

Sir,

With due respect I would like to inform you that, the department of Chemistry Morigaon College want to organize a workshop on **Biomass- Derived Fuels and Chemicals: Paving the Path to Carbon Neutrality**. In this occasion we would like to invite **Dr. Parikshit Gogoi**, Assistant Professor Nowgong College Autonomous, as a Resource Person.

Therefore, I request you kindly allow us to conduct the workshop at the mentioned date.

With Regards

Arunima Sarma
Dr. Arunima Sarma
HoD, Department of Chemistry
Morigaon College

Permitted
[Signature]
16/08/24