

Rediat Terefe

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+917452099300

rediat_ta@ch.iitr.ac.in

Indian institute of
technology,
Roorkee, India

Quality-oriented university graduate with a bachelor's degree in chemical engineering from Jimma University. Completed a master's degree in chemical engineering (Process Stream) from the same institution and currently pursuing a Ph.D. in Chemical Engineering at the Indian Institute of Technology Roorkee.

SKILLS

- Experiment Design
- Catalyst design
- Process optimization
- MERN stack development
- Advanced computer skill with maintenance
- Coding (JavaScript, python)
- Operating sophisticated machines including FE-SEM, XRD, GC-MS, HPLC , FTIR.

EDUCATION

- Graduated Jun/2018** **Degree in Chemical engineering (Regular),** Jimma university - Jimma, Ethiopia
- Final year BSc project under the title **Bitumen modification using waste plastic (poly ethylene terephthalate) for road bitumen improvement and minimization of environmental pollution.** With first place in whole Jimma university projects competition with score of A.
 - Community based training program (1, 2, 3 and, 4) with active participation and project submission in each phase.
- Graduated Feb/2021** **Masters in Chemical engineering (process engineering), (Regular),** Jimma university -Jimma, Ethiopia
- Final year thesis work under the title **Removal of Excess Free Fatty Acid From Edible Oil Using Betaine Based Natural Deep Eutectic Solvents and Oil's Effect Analysis**
- Ph.D. July/ 2022 (ongoing)** Am currently a Ph.D. research fellow in the department of chemical engineering IIT Roorkee, my Ph.D. title is “conversion of biomass into fuel intermediates using heterogeneous catalysis, and upgrading the intermediates, particularly targeting furfural and Furfuryl alcohol” and am working under the supervision of Prof. Prakash Biswa

<u>Softwares</u>	<u>Language</u>	<u>Hobbies</u>
<ul style="list-style-type: none"> • Origin • Design Expert • IBM SPSS • Edraw Max • Phyton and javascript • Kings Draw • Xpert highscore 	<ul style="list-style-type: none"> • English • Amharic • Guragega • Oromic(low) 	<ul style="list-style-type: none"> • Reading books • listening to music • playing basketball • physical exercise • web app development

CERTOFOCATE AND AWARDS

- Certificate of Merit from department of chemical engineering from JIMMA INSTITUTE OF TECHNOLOGY for standing first place on final research competition on Jun 25,2018.
- Certificate of recognition from JIMMA UNIVERSITY community-based education for being selected for “best student research project” at JIMMA UNIVERSITY 2018 annual student research symposium on jun 25,2018.
- Certificate of participation in the ProNet Entrepreneurship skill development training workshop by GIZ from jan 21 to feb 1,2019.
- Ethiopian university annual sport competition certificates for representing JIMMA UNIVERSITY in basketball.

Publications

Redait T. and Prakash B., “The direct catalytic conversion of teff straw into fuel intermediate: Optimization of reaction parameters”, Biomass and Bioenergy, 201(2025) 108150, <https://doi.org/10.1016/j.biombioe.2025.108150>

Arisha S., **Rediat T.** , “Optimization of reaction parameters by response surface methodology for the tri-reforming process over a Ni-silica catalyst to produce synthesis gas, international journal of hydrogen energy, 156(2025) 150378, <https://doi.org/10.1016/j.ijhydene.2025.150378>

REFERENCES

Dr.Prakash Biswas

Professor

Lecturer at the School of chemical Engineering ,Indian instate of technology Roorkee/Ethiopia

Cell phone; - +918126849030

Email; - Prakash.biswas@ch.iitr.ac.in

Dr.Ramachandran Kasirajan

Assistant professor

Lecturer at the School of chemical Engineering ,Jimma university,Jimma intitute of Technology/Ethiopia

Cell phone; - +251965807124

Email; - ramactech@gmail.com

Muluken Eshetu (Msc)

Lecturer at the School of Chemical Engineering,Jimma University,Jimma Institute of Technology/Ethiopia

Country Representative for Africademic Network

Coordinator/Ethiopia for GAU16 COY.

Email:- mulushakached@gmail.com



ጅማ ዩኒቨርሲቲ
Jimma University
ሬጀስትራር ጽ/ቤት
Office of the Registrar



ለሚመለከተው ሁሉ

TO WHOM IT MAY CONCERN

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የሚሰጣቸው ይሆናል፡፡

This Certificate is issued to Ato REDIAT TEREFE
ANDUALEM upon his/her graduation in Chemical
Engineering with B.Sc Degree on June 28, 2018.
His/her grades are CGPA 3.49. The Original Diploma and
Transcript will be issued upon the discharge of cost sharing
duty.

ከሰላምታ ጋር

Sincerely

Dr. Tesneme Belayneh
Deputy Registrar

☒ 378 ☎ 047 1117822

ፋክስ
FAX: 047 11122 06
E-mail: jhs@telecom.net.et

ጂማ ኢትዮጵያ
JIMMA:ETHIOPIA



JIMMA UNIVERSITY

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OFFICE OF THE REGISTRAR

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TEMPORARY CERTIFICATE OF GRADUATION

This is to certify that
REDIAT TEREFE ANDUALEM
graduated from
Jimma Institute of Technology
with
M.Sc. in Chemical
Engineering(Process Engineering) (Regular)
on
February 11, 2021.

This certificate of graduation has been given pending
the printing and issuance of the actual diploma.

ጅማ ዩኒቨርሲቲ

We are in the Community

Dr. Teshome Belayneh
Deputy Registrar

Registrar



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+251 47 111 2206
+251 47 111 1450



378
JU, ETHIOPIA



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प्रकाश बिस्वास, पीएच.डी.
प्राध्यापक

Prakash Biswas, Ph.D.
Professor

भारतीय प्रौद्योगिकी संस्थान रुड़की
रासायनिक अभियांत्रिकी विभाग
रुड़की-247 667, उत्तराखण्ड, भारत

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE
DEPARTMENT OF CHEMICAL ENGINEERING
ROORKEE-247 667, UTTARAKHAND, INDIA

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Mob. : +91 - 812 - 684 - 9030
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TO WHOM IT MAY CONCERN

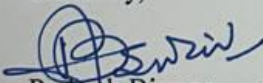
I am writing to express my full support for the research proposal submitted by my Ph.D. student, Rediat Terefe, as part of his application for the Small Research Grant (SRG) administered by Structural Transformation and Economic Growth (STEG)

Rediat is currently pursuing his Ph.D. in the Department of Chemical Engineering at the Indian institute of technology Roorkee, and his research majorly focuses on Biomass valorization through heterogeneous catalysis. The proposed project entitled "**Sustainable synthesis of carbon dots from waste biomass: a green approach to nanomaterial production**" is a valuable contribution to the field and aligns closely with both his doctoral objectives and broader research goals. I have reviewed the research proposal and confirm that the proposal is academically sound, methodologically rigorous, and feasible within the proposed timeline and budget. The project also demonstrates potential to contribute meaningfully to knowledge in the area of It falls under the STEG research theme of "Sustainability and Climate Change" promoting the development of environmentally friendly, low-cost materials from renewable sources.

I am confident in the ability of Rediat Terefe to carry out this project successfully and manage the resources responsibly. I will continue to provide academic supervision and guidance throughout his research period and fully endorse this application.

Please do not hesitate to contact me if you require any additional information.

Sincerely,


Prakash Biswas 16/7/2025



CERTIFICATE of MERIT



This is to certify that, School of Chemical Engineering at Jimma Institute of Technology,
Jimma University has awarded this certificate of merit to

Mr. Rediat Terefe

on June 25, 2018 in recognition of his outstanding work being with his peer group on

Student Research Project entitled

"Bitumen modification using waste plastic (polyethylene terephthalate) for road Bitumen
Improvement and minimization of environmental pollution"

in which they stood 1st in the student research competition held in the School.

Dr.-Ing Tamene Adugna (Associate Professor)
Scientific Director
Jimma Institute of Technology
Jimma University

Wondwosen Sime (Assistant Professor)
Head School of Chemical Engineering
Jimma Institute of technology
Jimma University





Jimma University

Community Based Education



CERTIFICATE OF RECOGNATION

This certificate is awarded to **REDIAT TEREFE** in recognition of his research work presentation which was selected as best student research project at Jimma university's 2018 annual student research symposium organized by Community Based Education(CBE).

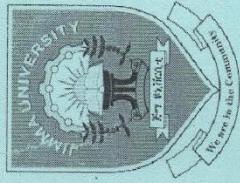
We are in the community

Professor Taye Tolemariam
Vice President for Academic Affairs

25/06/18

Dr. Kiteessa Hundera
Director, community Based Education





Certificate of Appreciation

This certificate is awarded to

PEDIAT TEREFE ANDUALEM

In recognition to the valuable contribution of the final year research/project entitled "...B.HUMEN. WODIFAGAYEN...W.H.WAQRE.PIKATE.(P.E.T) FOR IPAD B.HUMEN. WODIFAGAYEN...W.H.WAQRE.PIKATE" ranking 2nd among selected final year researches/projects from the Faculties and Two Schools of Jimma Institute of Technology in the year 2017/2018.

Dr. - Ing Tamene Adugna

Scientific Director for Jimma Institute of Technology

Eng'r. Moges Getahun

CBE and CS Director for Jimma Institute of Technology



Certificate of Participation

GIZ-Sustainable Training and Education Programme (STEP) in co-operation with Jimma Institute of Technology certifies the successful participation of **REDIAT TEREFE ANDUALEM**

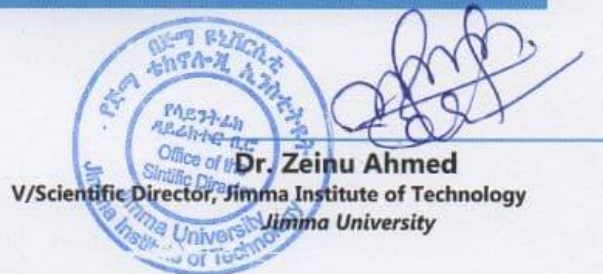
in the ProNet Entrepreneurship Skill Development Training Workshop for participants from Jimma University and SMEs, which was held from **January 21st to February 1st, 2019** in Jimma.

The training includes seven modules on:

- Developing Entrepreneurial Mind Set
- Business Strategy
- Production Management
- Resource- and Information Management
- Product Development and Quality Management
- Human Resource Management and
- Financial Management



Nicola Demme
GIZ-Sustainable Training and Education Programme
Programme Manager



Dr. Zeinu Ahmed
V/Scientific Director, Jimma Institute of Technology
Jimma University

Date: 1st February 2019



የተሳትፎ የምስክር ወረቀት CERTIFICATE OF PARTICIPATION



ለ ሊያገ ታክላ
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Prof. Jang Gyu (John) Lee, Ph.D.
President, Adama Science and Technology University
February 15, 2015



To Redia tevefe
This certificate has with gratitude, been awarded
in recognition of the valuable contribution made
towards the successful completion of the 8th
Ethiopian public University sport festival
as
held from January 31 to February 15, 2015 at
Adama Science and Technology University.



Abbay Belayhun
President, Ethiopian Public Universities
Sport Association
February 15, 2015





የተሳትፎ የምስክር ወረቀት

CERTIFICATE OF PARTICIPATION



ይህ የምስክር ወረቀት ለ Lezay +16 This Certificate is awarded to REDET TEREFE
በጅማ ዩኒቨርስቲ አዘጋጅነት በ 2008 ዓ.ም እና in recognition of his/her outstanding participation in
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June/ 2017 G.C

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[Signature] Fikru Lemessa (Prof.)
President

President of the University



በዕውቀትና ስፖርት የታላቁ ዘንግ ሲሆን፤