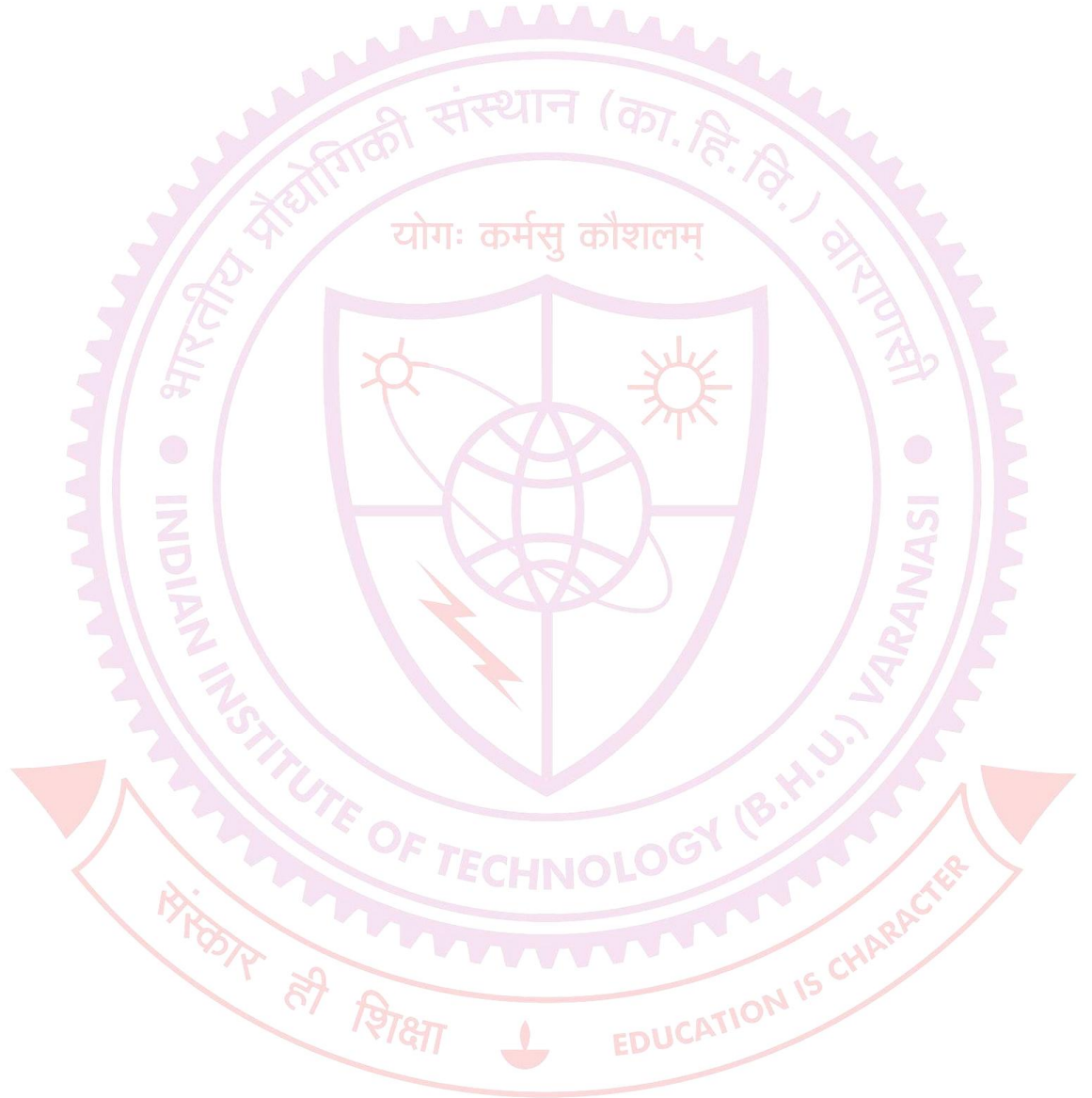
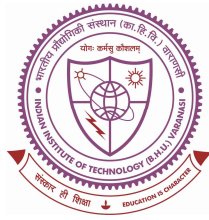


*Dedicated to the Almighty above
&
My beloved Family...*



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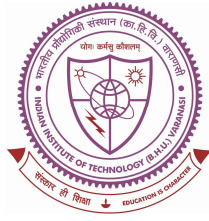
Undertaking from the Candidate

I, **Arepalli Sampath Kumar**, declare that the work embodied in this Ph.D. thesis is my own bonafide work carried out by me under the supervision of **Prof. S. P. Singh** and the co-supervision of **Prof. Ram Pyare** for a period of about 5 years 2 months from September, 2011 to October 2016 at the Department of Ceramic Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi. The matter embodied in this Ph. D. thesis has not been submitted for the award of any other degree/diploma.

Date:

Place: Varanasi

(Arepalli Sampath Kumar)



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Varanasi – 221 005**

ANNEXURE- E

CANDIDATE'S DECLARATION

I, **Arepalli Sampath Kumar**, certify that the work embodied in this Ph.D. thesis is my own bonafide work carried out by me under the supervision of **Prof. S. P. Singh** and the co-supervision of **Prof. Ram Pyare** for a period of about 5 years 2 month from September, 2011 to Octobe, 2016 at the Department of Ceramic Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi. The matter embodied in this Ph.D. thesis has not been submitted for the award of any other degree/diploma.

I declare that I have faithfully acknowledged, given credit to and referred to the research workers wherever their works have been cited in the text and the body of the thesis. I further certify that I have not willfully lifted up some other's work, para, text, data, results, etc. reported in the journals, books, magazines, reports, dissertations, theses, etc., or available at web-sites and included them in this Ph.D. thesis and cited as my own work.

Date:

Place: Varanasi

(Arepalli Sampath Kumar)

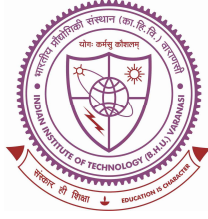
**Certificate from the Supervisor/Co-supervisor/Head of the
Department**

This is to certify that the above statement made by the candidate is correct to the best of our knowledge.

**(Prof. S.P. Singh)
Supervisor**

**(Prof. Ram Pyare)
Co-supervisor**

**(Prof. Devendra Kumar)
Head of the Department**



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Varanasi – 221 005**

ANNEXURE- F

COURSE/COMPREHENSIVE EXAMINATION COMPLETION

CERTIFICATE

योग: कर्मसु कौशलम्

This is to certify that **Mr. Arepalli Sampath Kumar**, a bonafide research scholar (Ceramic Engineering) of this Department, has successfully completed the course work/comprehensive examination requirement, which is a part of his Ph.D. programme.

Date:

Place: Varanasi

(Head of the Department)

संस्कार ही शिक्षा



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ANNEXURE- G

PRE-SUBMISSION SEMINAR COMPLETION CERTIFICATE

This is to certify that **Mr. Arepalli Sampath Kumar**, a bonafide research scholar (Ceramic Engineering) of this Department, has successfully completed the Pre-submission seminar requirement on the topic ***“Studies on Bioactivity, Biocompatibility and Physico-Mechanical Behavior of Soda-Lime-Phosphosilicate Bioglass Containing MgO, SrO, BaO and Ag₂O Additives”*** on dated **29.06.2016**, which is a part of his Ph.D. programme.

Date:

Place: Varanasi

(Head of the Department)



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ANNEXURE- H

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Title of the Thesis : “Studies on Bioactivity, Biocompatibility and Physico-Mechanical Behavior of Soda-Lime-Phosphosilicate Bioglass Containing MgO, SrO, BaO and Ag₂O Additives”

Candidate’s Name: Mr. Arepalli Sampath Kumar

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Date:

Place: Varanasi

(Arepalli Sampath Kumar)