

GOVERNMENT OF INDIA DEPARTMENT OF ATOMIC ENERGY RAJA RAMANNA CENTRE FOR ADVANCED TECHNOLOGY INDORE-452013

CERTIFICATE

This is to certify that the dissertation work entitled, "TiO₂/PMMA NANOCOMPOSITE FILM FOR SWITCHING APPLICATION" submitted by, PRAKRITI JAIN, MASTER OF TECHNOLOGY (M.TECH) in Nanotechnology, to the JAMIA MILLIA ISLAMIA, NEW DELHI is hereby approved as a credible work carried out by her during the period of JANUARY 2019 to MAY 2019 under my supervision in LASER & FUNCTIONAL MATERIALS DIVISON (LFMD), RRCAT, DAE, Indore, India for the partial fulfillment of the degree MASTER OF TECHNOLOGY (M.TECH) in Nanotechnology, to the JAMIA MILLIA ISLAMIA, NEW DELHI. Her dedication and sincerity are praiseworthy, and wish her all the success for her future endeavor.

Dr. S.SATAPATHY SCIENTIFIC OFFICER-G, RRCAT ASSOCIATE PROFESSOR, HBNI, RRCAT, INDORE

सी. श्रीविद्धारम रातपाशी/Dr. Scinibus Satupathy पैडानिक श्रीकार्थ / Scientific Officer भारत स्थान / Generalized for India भारत स्थान प्रभाव जाती होती केन्द्र Raja Rumana Centre for Advanced Technology दावार केंद्र, स्टीर (इ.स.)/F.O. Cell, induce-4524(3 (M.E.)

This is to certify that Hammadur Rub Ansari (17MNT006) has successfully completed his dissertation entitled "Effect of KI doping on Room-Temperature Excitons in Layered Metal Halide Perovskites" being submitted in partial fulfillment for the requirement of the degree of Master of Technology in Nanotechnology from Centre for Nanoscience and Nanotechnology under my guidance and supervision. The work embodied in this report is his bonafide work and has not been submitted elsewhere for the award of any degree or diploma.

Date- 13-05-2019

Place- New Delhi

Dr. Shahab Ahmad

Assistant Professor

Centre For Nanoscience & Nanotechnology Jamia Millia Islamia (A Central University)

New Delhi-110025

India

Dr. SHAHAB AHMAD

Assistant Professor
Centre for Nanoscience and Nanotechnology
Jamia Millia Islamia (Central University)
New Delhi. 110025, India.

(A Central University by an Act of Parliament)
NAAC Accredition A Grade

जामिया मिल्लिया इस्लामिया

Centre for Nanoscience and Nanotechnology

Macouna Mchammad Ali Jauhar Marg Jama Nagar New Delhi-110025 5₆₁ +91-011-26981717 Extn 3226 Direct 26987153

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नैनोविज्ञान एवं नैनोप्रोद्योगिकी केन्द्र



CERTIFICATE

This is to certify that Md Sharique Azmi, a student of, Semester IV M.Tech (Nanotechnology) from Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, has undertaken project work entitled: "Synthesis of TiO2, ZnO and Formation of nanocomposite of gadolinium doped ZnO", under the supervision of Dr Aurangzeb Khurram Hafiz at Centre for Nanoscience and Nanotechnology Jamia Millia Islamia, New Delhi during the period of 10th of January, 2019 to 10th May, 2019.

He has successfully completed his project and submitted the project report. During the period of his work, He was sincere punctual and regular. His conduct and behaviour were very good.

(Prof. S. S. Islam) Director (Dr. A. K. Hafiz) Associate Professor

(A Central University by an Act of Parliament) NAAC Accredited A Grade

जामिया मिल्लिया इस्लामिया

Centre for Nanoscience and Nanotechnology

Mauiana Mohammad Ali Jauhar Marg Jamia Nagar, New Delhi-110025 1cl +91-011-26981717 Extn 3226 Direct : 26987153 E-mail: cnn@jmi.ac.in Website: http://www.jmi.ac.in



नैनोविज्ञान एवं नैनोप्रोद्योगिकी केन्द्र

CERTIFICATE

This is to certify that Salman Khursheed Ahmad, a student of, Semester IV M.Tech (Nanotechnology) from Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, has undertaken project work entitled: "Synthesis of TiO2, ZnO and Formation of nanocomposite of gadolinium doped ZnO", under the supervision of Dr Aurangzeb Khurram Hafiz at Centre for Nanoscience and Nanotechnology Jamia Millia Islamia, New Delhi during the period of 10th of January, 2019 to 10th May, 2019.

He has successfully completed his project and submitted the project report. During the period of his work, He was sincere punctual and regular. His conduct and behaviour were very good.

(Prof. S. S. Islam) Director (Dr. A. K. Hafiz) Associate Professor JAMIA MILLIA ISLAMIA (A Central University by an act of Parliament) NAAC Accredated 'A' Grade Maulana Mohammed Ali jauhar marg Jamia nagar , New Delhi-110025 Tel: +91-011-26961717 Extn 3226 Direct: 26967163 E-mail :cnn@jmi.ac.in Website:http://www.jmi.ac.in



Centre for Nanoscience and Nanotechnology

CERTIFICATE

This is to certify that Mr. Som Kumar Basnat, student of final year, Semester IV M.Tech (Nanotechnology) from Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, has undertaken project work entitled: "Design of a Novel High Gain Graphene Nanoribbon Field Effect Transistor based Operational Transconductance Amplifier" under the supervision of external Supervisor Dr. M. Nizamuddin at Electronics Department, Jamia Millia Islamia, New Delhi during the period of Jan,2019 to May, 2019.

He has successfully completed his dissertation project report. During the period of his work, he was sincere, punctual and regular. His conduct and behavior were very good.

Associate Professor

Dr. M. Nizamuddin

Electronic Department

Jamia Millia Islamia

New Delhi-110025

(External Supervisor)



Dr. Nikhil Chander

Assistant Professor,
Department of Electrical Engineering and
Computer Science,

Indian Institute of Technology Bhilai

GEC Raipur Campus, Old Dhamtari Road, Sejbahar, Raipur, Chhattisgarh, 492015 Website: https://www.iitbhilai.ac.in/index.php?pid=nikhil

CERTIFICATE

This is to certify that Mohd. Khurshid Alam, MTech student of Jamia Millia Islamia (17MNT012), worked as a research intern under my guidance. Mr. Alam has successfully completed his dissertation entitled "Fabrication of Perovskite Solar cell by Sequential Deposition Method" being submitted in partial fulfillment of the requirement for the degree of Master of Technology in Nanotechnology from Centre for Nanoscience & Nanotechnology, Jamia Millia Islamia, New Delhi. The work embodied in this report is his original work and has not been submitted elsewhere for the award of any degree or diploma.

Date- 08-05-2019 Place- Raipur

Dr. Nikhil Chander

Assistant Professor

Department of Electrical Engineering and Computer Science Indian Institute of Technology Bhilai

(GEC Campus) Sejbahar, Raipur-492015 (Chhattisgarh)



MEWAT ENGINEERING COLLEGE

Affiliated to MDU, Rohtak Approved by AICTE, New Delhi A Minority Institution (Open to All Sections of Society) Recognized by the Directorate of Technical Education, Haryana

CERTIFICATE

This is to certify that the dissertation work entitled, "EVOLUTION OF TRANSISTORS: FROM SILICON TO CARBON ERA", being submitted by Md. Ahmed Bari to Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia (A Central University), New Delhi for the award of the degree of Masters of Technology (Nanotechnology) is carried out under my guidance as part of the curriculum and as a partial fulfilment of the requirement for the award of degree.

Adil Zaidi

Mr. Adil Zaidi

Assistant Professor Electronics and Communication MEWAT ENGINEERING COLLEGE NUH-122107

Place: NEW DELHI Date: 16.05.2019



AMITY UNIVERSITY — UTTAR PRADESH —

ITY INSTITUTE FOR ADVANCED RESEARCH & STUDIES (MATERIALS & DEVICES)

CERTIFICATE

This is to certify that the dissertation entitled "FABRICATION OF SiNWs ON Si CHIP AND THEIR DECORATION FOR IR SENSING", being submitted by Mr. Qamar Ali Mir, to the Jamia Millia Islamia (A Central University), New Delhi, for the award of degree of Master's of Technology in Nanotechnology is a record of bonafide research work carried out by him under my supervision and guidance. He has fulfilled the requirements for submission of the dissertation, which to the best of my knowledge has reached the requisite standard.

Dr. Avshish Kumar

Assistant Professor

Amity Institute for Advanced Research and Studies

(Materials and Devices),

Amity University,

Noida-201313, U.P.

Place: Noida

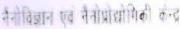
Date: 14-05-2019

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जामिया गिल्लिया इस्लामिया

Centre for Nanoscience and Nanotechnology

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Certificate

This is to certify that the thesis entitled, "Study on Synthesis and Characterization of Nanomaterials (WS2 nanosheets) for Photocatalytic applications" submitted by Asim Khan in partial fulfillment of the requirements for the award of Master of Technology in Nanoscience and Nanotechnology at Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia (a central university) is an authentic work carried out by him under my supervision and guidance.

To the best of my knowledge, the matter embodied in this thesis has not been submitted to any university /institute for the award of any degree or diploma.

Prof. S. S. ISLAM

Director

Centre for Nanoscience and nanotechnology

Jamia Millia Islamia

Dr. Manika Khanuja

Assistant Professor

Centre for Nanoscience and nanotechnology

Jamia Millia Islamia



GOVERNMENT OF INDIA DEPARTMENT OF ATOMIC ENERGY

RAJA RAMANNA CENTRE FOR ADVANCED TECHNOLOGY INDORE-452013

CERTIFICATE

This is to certify that the dissertation work entitled, "Fabrication and Characterization of Polymer Based NiFe₂O₄/PMN-PT Composite Multiferroic nanostructures" submitted by ISHRAT HASHMI, MASTER OF TECHNOLOGY (M.TECH) in Nanotechnology, to the JAMIA MILLIA ISLAMIA, NEW DELHI is hereby approved as a credible work carried out by her during the period of JANUARY 2019 to MAY 2019 under our supervision in LASER & FUNCTIONAL MATERIALS DIVISON (LFMD), RRCAT, DAE, Indore, India for the partial fulfillment of the degree MASTER OF TECHNOLOGY (M.TECH) in Nanotechnology, to the JAMIA MILLIA ISLAMIA, NEW DELHI. Her dedication and sincerity are praiseworthy, and wish her all the success for her future

endeavor.

DR. ANJU AHLAWAT **DST INSPIRE FACULTY** RRCAT, INDORE

DR. S. SATAPATHY SCIENTIFIC OFFICER-G, RRCAT ASSOCIATE PROFESSOR, HBNI,

RRCAT, INDORE el, silkrapp struck programs Seeparin

STATE FER (S.C.) FREEL AT MAINE STATE (M.P.)



This is to certify that the thesis entitled "Study of Piezoelectric MEMS based Acoustic Sensor for High Sound Pressure Level Measurement" submitted by Mr. Nadeem Ahamad to CSIR-CEERI, Pilani, Rajasthan, is a record of bonafide research work under my supervision and I consider it worthy for the award of the degree of Master of Technology in Nanotechnology at Centre for Nanoscience & Nanotechnology, Jamia Millia Islamia, New Delhi.

(Mahanth Prasad)

Dr. Mahanth prasad

Senior Scientist

Head, Transducer and Actuators Group CSIR-Central Electronics Engineering Research Institute

Pilani, Rajasthan

This is to certify that Nahiya Mushtaq (17MNT015) has successfully completed her dissertation entitled "Effect of KI doping on Room-Temperature Excitons in Layered Metal Halide Perovskites" being submitted in partial fulfillment for the requirement of the degree of Master of Technology in Nanotechnology from Centre for Nanoscience and Nanotechnology under my guidance and supervision. The work embodied in this report is her bonafide work and has not been submitted elsewhere for the award of any degree or diploma.

Date- 13-05-2019

Place- New Delhi

Dr. Shahab Ahmad

Assistant Professor

Centre For Nanoscience & Nanotechnology Jamia Millia Islamia (A Central University) New Delhi-110025

India

Dr. SHAHAB AHMAD

Assistant Professor

Centre for Nanoscience and Nanotechnology
Jamia Millia Islamia (Central University)

New Delhi, 110025, India.

(A Central University by an Act of Parliament) NAAC Accredited 'A Grade

जामिया मिल्लिया इस्लामिया

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नैनोविज्ञान एवं नैनोप्रोद्योगिकी केन्द्र

CERTIFICATE

This is to certify that Ms. Iram Siddiqui, student of final year, Semester IV M.Tech (Nanotechnology) from Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, has undertaken project work entitled: TMDCs: Synthesis, Characterization and Photocatalysis Application under the supervision of Dr. Manika Khanuja at Centre for Nanoscience and Nanotechnology Jamia Millia Islamia, New Delhi during the period of 7th January, 2018 to 20th May, 2018.

She has successfully completed her dissertation project and submitted the project report. During the period of her work, she was sincere, punctual and regular. Her conduct and behavior were very good.

(Prof. S. S. Islam) Director

Prof. S. S. Islam
Director
Centre for Nanoscience and Nanoschnology
Jenita Millia Islamia
New Delhi - 110025

(Dr. Manika Khanuja) Assistant Professor



भारतीय प्रौद्योगिकी संस्थान मुंबई पवर्ड, मुंबई- ४०० ०७६, मारत

Indian Institute of Technology Bombay Powar, Mumbai-400 076, India

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(+91-22) 2572 2545

: (+91-22) 2572 3480

वेबसाईट/Website: www.iitb.ac.in

Date: 21st May, 2018

TO WHOM SO EVER IT MAY CONCERN

This is to certify that Mr. Mohammad Ali, M.Tech. Degree (Nanotechnology) student from Jamia Millia Islamia, Centre for Nanoscience and Nanotechnology, New Delhi, has undertaken project work entitled: Study of Ammonia Plasma Treated Graphene Oxide Sheets under the supervision of Prof. S. S. Major, Department of Physics, Indian Institute of Technology, Bombay, during the Period from 1st January, 2018 to 21st May, 2018 and has successfully completed the same.

Date of issue: 21st May, 2018

Place: IIT Bombay



Sr. Asst. Registrar (Academic)



सी.एस.आई. आर. राष्ट्रीय भौतिक प्रयोगशाला

CSIR - NATIONAL PHYSICAL LABORATORY

यज्ञानिक तथा औद्योगिक अनुसंधान परिषद्) Council of Scientific & Industrial Research)

डा॰ कं, एस, कृष्णन् मार्ग, नई दिल्ली-110012, (भारत) Dr K S. Krishnan Marg. New Delh-110012, (INDIA)



Certificate

This is to certify that the thesis entitled "Study of Optical Properties of Highly Luminescent Europium Doped ZnO" is submitted in partial fulfillment of the requirement for the award of degree of Master of Technology in Nanotechnology from Jamia Millia Islamia, New Delhi.

It is the faithful record of bonafide research work carried out by Mr. Md Nadeemul Haque under my supervision and guidance, between 15th January 2018 to 15th July 2018. It is further certify that no part of the thesis is submitted to any other university or institute for the award of any other degree or diploma to the best of my knowledge.

How the

Dr. D. HARANATH

Principal Scientist & Head Alternative Energy Materials Group Advanced Materials & Devices Division CSIR-National Physical Laboratory New Delhi-110012

That Mout Dr. RINA SHARMA

Sr. Principal Scientist Head-HRD Group

CSIR-National Physical Laboratory

New Delhi-110012

91-11-45609310 Director Office : 45609201 / 45609301

COA's Office : 45609203 COSP's Office 45608367 SPO's Office : 45608645

ई-मेल /E-mail: root@nplindia.org वेबसाईट Website www.nplindia.org

This is to certify that the thesis entitled "Study of optical property of highly Luminescence Europium doped TiO₂" is submitted in partial fulfillment of the requirement for the award of degree of master in technology in Nanotechnology at Jamia Millia Islamia, New Delhi.

It is the faithful record of bonafide research work carried out by Mr. Abdul Ahad under my supervision and guidance. It is further certify that no part of the thesis is submitted to any other university or institute for the award of any other degree or diploma to the best of my knowledge.

I am extremely satisfied with Mr. Abdul Ahad contribution to the progress of my laboratory.

R. Squivasa R. Dr. Ragam Srinivasa Rao

Scientist
Advance Materials & Devices Division
CSIR-National Physical Laboratory
New Delhi-110012

ही. श्रीनियास राव रागम / Dr. Sninivasa Rao Ragam वैद्यानिक / Scientist ही एक अर्क्ष अन्द-चंद्रीय भौतिक प्रयोगीशाला CSIR - National Physical Laborathry डाठ के एस. कृष्णन् मार्ग, नई दिल्ली—110012 Dr. K.S. Krishnan Marg. New Delni-110012

Control University by an Act of Parliament)

Accredited A Grade

जामिया मिल्लिया इस्लामिया

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Direct: 26987153 E-mail: cnn@jmi.ac.in Website: http://www.jmi.ac.in



Centre for Nanoscience and Nanotechnology

नैनोविज्ञान एवं नैनोप्रोद्योगिकी केन्द्र

CERTIFICATE

This is to certify that Ms. Hameem Habib, student of final year, Semester IV M Tech (Nanotechnology) from Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, has undertaken project work entitled: Synthesis of Graphene Based Carbon Composites For Device Application under the supervision of Dr. Samina Husain at Centre for Nanoscience and Nanotechnology Jamia Millia Islamia, New Delhi during the period of 7th January, 2018 to 20th May, 2018.

She has successfully completed her dissertation project and submitted the project report. During the period of her work, she was sincere, punctual and regular. Her conduct and behavior were very good.

23.05.201

(Prof. S. S. Islam)

Director

Prof. S. S. Islam Director Director entre for Nanoscience and Nanotechnology James Millia Islamia New Dahl - 110025 (Dr.Samina Husain) Asstt. Professor



This is to certify that the thesis entitled "Studies on Inorganic Solar Cells Based on Graphene/Gallium Arsenide Schottky Junction", submitted by Mr. Zeeshan Alam Ansari to CSIR-CEERI, Pilani, Rajasthan, is a record of bona fide research work under my supervision and I consider it worthy for the award of the degree of Master of Technology in Nanotechnology at Jamia Millia Islamia, New Delhi.

(Dr. Sk Masiul Islam)

Scientist, Optoelectronics and MOEMS

CSIR-Central Electronics Engineering Research Institute (CSIR-CEERI)
Assistant Professor, Academy of Scientific and Innovative Research (AcSIR)
Pilani, Rajasthan-333031



[08/05/2018]

To Whomsoever It May Concern

Dear Sir/Madam,

I write this letter to appreciate the work done by Mr. Prakalp Gautam in my laboratory during his stay as a project student for four months [07th Jan -10th May 2018]. During his stay he exhibited extraordinary scientific abilities which added great value to the research work carried out in my laboratory at Birla Institute of Technology & Science (BITS). He worked on the synthesis and characterization of TMDC based nanomaterials with emphasis on making TMDC based supercapacitors.

In a very short time, he was able to make nanomaterials with excellent morphology and came up with several unique recipes for synthesizing composites. His laboratory skills are excellent and I can conclusively state that he is a truly talented experimentalist. He completed all the assignments given to him on time and at the end of the project he was able to demonstrate the superior storage properties of TMDC based supercapacitors.

I am extremely satisfied with Gautam contribution to the progress of my laboratory and I am sure he has the all the qualities of becoming a very good scientist. I wish him all the very best for a highly successful research career.

Sincerely,

E. soKammon

P.N. Dupole (HOD Physics)

(P. N. Deepak)

Department of Physics
DITS Pilani K. K. Birla Goa Campus
Zuarinagar-403740

Birls Institute of Technology & Science, Plant K K Bits Gos Campus , Near NH 178, Bypass Road Zuarinsgar 403726, Gos, India Tel: +91 0832 2580458

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Head
Department of Physics
BITS Pilani-K. K. Birls Gos Campus
Zusringgar-403726

(A Central University by an Act of Parliament) NAAC Accredited 'A' Grade

जामिया मिल्लिया इस्लामिया

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Direct: 26987153 E-mail: cnn@jmi.ac.in

Website : http://www.jmi.ac.in



Centre for Nanoscience and Nanotechnology

नैनोविज्ञान एवं नैनोप्रोद्योगिकी केन्द्र

CERTIFICATE

This is to certify that Ms. Sehba Khatun, student of final year, Semester IV M.Tech (Nanotechnology) from Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, has undertaken project work entitled: Growth, Characterization, Dispersion and Dielectrophoretic Deposition of TiS₃ Nanoribbons under the supervision of Dr. Prabhash Mishra at Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi during the period of 7th January, 2018 to 20th May 2018.

She has successfully completed her dissertation project and submitted the project report. During the period of her work, she was sincere, punctual and regular. Her conduct and behaviour were very good.

(Prof. S.S.Islam)

Director



राष्ट्रीय भौतिक प्रयोगशाला

(वैज्ञानिक तथा औद्योगिक अनुसंघान परिषद्)

NATIONAL PHYSICAL LABORATORY

(Council of Scientific and Industrial Research) डा० के. एस. कृष्णन् मार्ग, नई दिल्ली-110012 Dr. K.S. Krishnan Marg, New Delhi-110012



CERTIFICATE

Assisted Molecular Beam Epitaxy and Liquid Exfoliation Assisted Growth of MoS₂ Nano-Sheets for Sensing Applications", being submitted by Mr. Rishi Ranjan Kumar, to the Jamia Millia Islamia, New Delhi, for the award of degree of Master's in Technology in Nanotechnology is a record of bonafide research work carried out by him under my supervision and guidance. He has fulfilled the requirements for submission of the thesis, which to the best of my knowledge has reached the requisite standard.

Dr. Govind

Principal Scientist and Associate Professor

Thin Film Device Group

Room No. 7, Quantum Structure Building

CSIR-National Physical Laboratory

Dr. K.S. Krishnan Road, New Delhi-110012

Place: Delhi

Date: 28/5/2018

Tax / फेक्स : 91-11-45609310 Director Office : 45609201 / 45609301 ई-मेल : root@nplindia.o

E-mail : root@nplindia.o

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NAAC Accredited 'A' Grade

जामिया मिल्लिया इस्लामिया

Centre for Nanoscience and Nanotechnology

Maulana Mohammad Ali Jauhar Marg Jamia Nagar, New Delhi-110025 Tel: +91-011-26981717 Extn. 3226

Direct: 26987153 E-mail: cnn@jmi.ac.in Website: http://www.jmi.ac.in اللايات

नैनोविज्ञान एवं नैनोप्रोद्योगिकी केन्द्र

CERTIFICATE

This is to certify that Ms. Arshiya Ansari, student of final year, Semester IV M.Tech. (Nanotechnology) from Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, has undertaken project work entitled: MoS₂–Alumina Nanocomposite Thin Film Formation under the supervision of Dr. Prabhash Mishra at Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi during the period of 7th January, 2018 to 20th May, 2018.

She has successfully completed her dissertation project and submitted the project report. During the period of her work, she was sincere, punctual and regular. Her conduct and behavior were very good.

(Prof. S. S. Islam)

Director

(Dr. Prabhash Mishra)

(A Central University by an Act of Parliament)

जागिया मिल्लिया इस्लामिया

Maulana Mohammad Ali Jauhar Marg Jamia Nagar, New Delhi-110025 Tel: +91-011-26981717 Extn. 3226

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Centre for Nanoscience and Nanotechnology

नैनोविज्ञान एवं नैनोप्रोद्योगिकी केन्द्र

CERTIFICATE

This is to certify that Mr. Shahzad Ahmed, student of final year, Semester IV M.Tech (Nanotechnology) from Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, has undertaken project work entitled: MoS₂-Alumina Nanocomposite Thin Film Formation under the supervision of Dr. Prabhash Mishra at Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi during the period of 7th January, 2018 to 20th May, 2018.

He has successfully completed his dissertation project and submitted the project report. During the period of his work, he was sincere, punctual and regular. His conduct and behavior were very good.

(Prof. S. S. Islam)

Director

(Dr Prabhash Mishra)

(A Central University by an Act of Parliament)
NAAC Accredited 'A' Grade

जामिया मिल्लिया इस्लामिया

Centre for Nanoscience and Nanotechnology

Maulana Mohammad Ali Jauhar Marg Jamia Nagar, New Delhi-110025 Tel: +91-011-26981717 Extn. 3226

Direct : 26987153 E-mail : cnn@jmi ac.in Website : http://www.jmi.ac.in

नैनोविज्ञान एवं नैनोप्रोद्योगिकी केन्द्र

CERTIFICATE

This is to certify that Mr. Shah Faisal, student of final year, Semester IV M.Tech. (Nanotechnology) from Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi, has undertaken project work entitled: Growth, Characterization, Dispersion and Dielectrophoretic Deposition of TiS₃ Nanoribbons under the supervision of Dr. Prabhash Mishra at Centre for Nanoscience and Nanotechnology, Jamia Millia Islamia, New Delhi during the period of 7th January, 2018 to 20th May, 2018.

He has successfully completed his dissertation project and submitted the project report. During the period of his work, he was sincere, punctual and regular. His conduct and behavior were very good.

(Prof. S. S. Islam) Director (Dr. Prabhash Mishra)



राष्ट्रीय भौतिक प्रयोगशाला

(वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्)

NATIONAL PHYSICAL LABORATORY

(Council of Scientific and Industrial Research)

डा० के. एस. कृष्णन् मार्ग, नई दिल्ली-110012 Dr. K.S. Krishnan Marg, New Delhi-110012



CERTIFICATE

This is to certify that the thesis entitled, "Electrical transport and gas sensing application of metal oxide based heterostructures", being submitted by Ms. Bushra Rehman, to the Jamia Millia Islamia, New Delhi, for the award of degree of Master's in Technology in Nanotechnology is a record of bonafide research work carried out by her under my supervision and guidance. She has fulfilled the requirements for submission of the thesis, which to the best of my knowledge has reached the requisite standard.

Dr. Govind

Principal Scientist and Associate Professor

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Room No. 7, Quantum Structure Building

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Place: Delhi

Date: 28/05/2018

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This is to certify that the thesis entitled "Metal oxide gas sensor for carbon monoxide Detection", submitted by Mr. Mohd Nahid to CSIR-CEERI, Pilani, Rajasthan, is a record of bona fide research work under my supervision and I consider it worthy for the award of the degree of Master of Technology in Nanotechnology at Centre for Nanoscience & Nanotechnology, Jamia Millia Islamia, New Delhi.

(Dr. Rahul Prajesh)

Scientist, Smart Sensor Area

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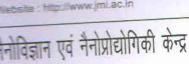
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Centre for Nanoscience and Nanotechnology

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CERTIFICATE

This is to certify that project report entitled "NANOCOMPOSITE OF MOLYBDENUM DISELENIDE AND POLYPYRROLE FOR PHOTOCATALYTIC DEGRADATION OF CONGORED DYE" submitted by "ANKUR MISHRA" (17MNT-003) in complete fulfilment for the award of the degree of Master of Technology Nanotechnology from Jamia Millia Islamia, New Delhi is record of the work carried out by her under our supervision. The work has been carried out from 15th january 2019 to 15th may 2019. The project embodies the original work done by him to the best of our knowledge and has not been submitted to any other degree of this or any other university. The matter embodied in this project report is original and not copied from any source without proper citation.

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