

# Project Mapping - Project Report - physics (2016-2017)



**ARULMIGU PALANIANDAVAR COLLEGE OF ARTS AND CULTURE**

(Reaccredited with "A" Grade by NAAC)

Run by Arulmigu Dhandayuthapani Swamy Thirukkol, H.R & C.E Dept. Government of Tamilnadu

A Government Aided College - Affiliated to Madurai Kamaraj University, Madurai

Dindigul Road, Palani - 624601



## 1.3 CURRICULUM ENRICHMENT - SUPPORTIVE DOCUMENTS

DEPARTMENT: PHYSICS

CLASS: II M.Sc. PHYSICS

YEAR: 2016-2017

S.No.	UNIVERSITY REG. No.	NAME OF THE STUDENT	NAME OF THE PROJECT GUIDE	TITLE OF THE PROJECT
1	B5E16301	CHANDRA LEKHA. M	Dr. P. KOKILA	CHARIZATION OF POTASSIUM ACID PHTHALATE(KAP) GLE CRYSTAL
2	B5E16302	ELIZABETH. M	Mrs. S. ANITHA	AC IMPEDANCE AND DIELECTRIC SPECTRAL ANALYSIS OF COMPOSITE POLYMER ELECTROLYTE FOR LITHIUM ION BATTERIES
3	B5E16303	KANCHANA. G	Mrs. R. PREMILA	PREPARATION AND CHARACTERIZATION OF COMPOSITE POLYMER ELECTROLYTE FOR LITHIUM ION BATTERIES
4	B5E16304	NIVETHA. S	Dr. K. KULATHURAAN	MORPHOLOGICAL, OPTICAL AND ELASTIC PROPERTIES OF POROUS SILICON
5	B5E16305	PRIYANKA. R	Dr. M. RAMESH BABU	GROWTH AND CHARACTERIZATION OF POTASSIUM ACID PHTHALATE (KAP) SINGLE CRYSTAL
6	B5E16306	SUHIRTHA. V	Dr. M. RAMESH BABU	GROWTH AND CHARACTERIZATION OF POTASSIUM ACID PHTHALATE (KAP) SINGLE CRYSTAL
7	B5E16307	AMEERHAMSAN	Dr. K. KULATHURAAN	MORPHOLOGICAL, OPTICAL AND ELASTIC PROPERTIES OF POROUS SILICON
8	B5E16308	GOWTHAM. R	Mrs. R. PREMILA	PREPARATION AND CHARACTERIZATION OF COMPOSITE POLYMER ELECTROLYTE FOR LITHIUM ION BATTERIES
9	B5E16309	JEGATHEESWARAN. P	Mrs. S. ANITHA	AC IMPEDANCE AND DIELECTRIC SPECTRAL ANALYSIS OF COMPOSITE POLYMER ELECTROLYTE FOR LITHIUM ION BATTERIES

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10	B5E16310	MANOJBABU. V	Mr. V. RAMALINGAM	STRUCTURAL, OPTICAL AND ACOUSTICAL PROPERTIES OF POROUS SILICON BY STRAIN ETCHING METHOD
11	B5E16311	MANOJ KUMAR. S	Lt. K. PAKIYARAJ	FABRICATION OF MIXED METALOXIDE THIN FILMS BY SPRAY PYROLYSIS TECHNIQUE
12	B5E16312	PRABHAKARAN. S	Mr. V. RAMALINGAM	STRUCTURAL, OPTICAL AND ACOUSTICAL PROPERTIES OF POROUS SILICON BY STRAIN ETCHING METHOD
13	B5E16313	VADIVEL. M	Dr. K. KULATHURAN	MORPHOLOGICAL, OPTICAL AND ELASTIC PROPERTIES OF POROUS SILICON
14	B5E16314	VIGNESHWARAN. K	Lt. K. PAKIYARAJ	FABRICATION OF MIXED METALOXIDE THIN FILMS BY SPRAY PYROLYSIS TECHNIQUE
15	B5E16315	VIJAYAKUMAR. C	Mr. V. RAMALINGAM	STRUCTURAL, OPTICAL AND ACOUSTICAL PROPERTIES OF POROUS SILICON BY STRAIN ETCHING METHOD

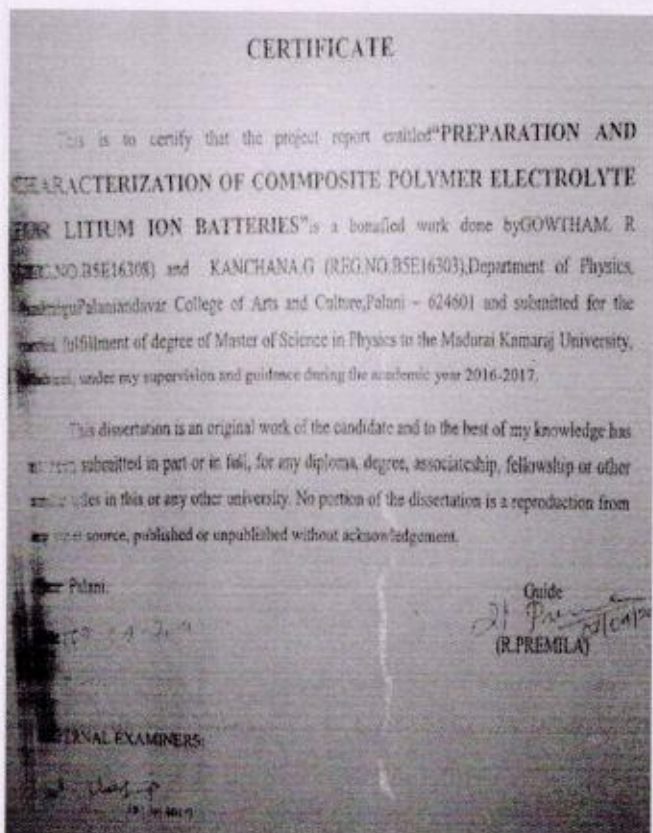
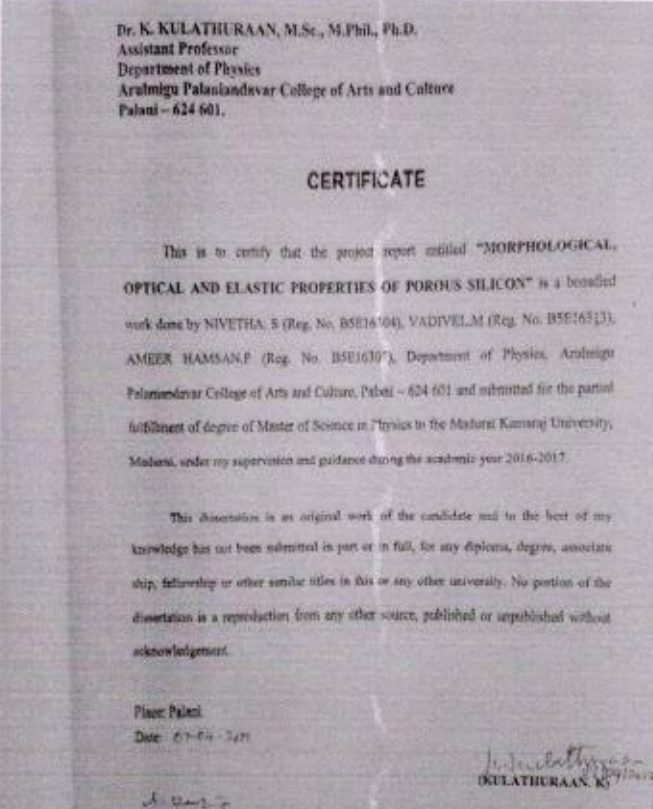
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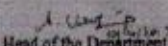

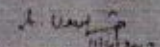
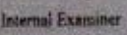
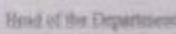
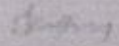
**PG - PROJECT REPORT-(2016 – 2017) - BATCH**

<p align="center">1</p>	<p><b>CHANDRA LEKHA. M</b> <b>B5E16301</b></p> <p><b>UNDER THE GUIDANCE OF</b> <b>Dr. P. KOKILA</b></p>	<p align="center"><b>CERTIFICATE</b></p> <p>This is to certify that the dissertation entitled "GROWTH AND CHARACTERIZATION OF POTASSIUM ACID PHTHALATE (KAP) SINGLE CRYSTALS", is a bonafied record of the original research work done by M.CHANDRALEKA ( REG.NO. B5E16301), during the Academic year July 2016 to April 2017 of her study in the Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani, under my guidance and the work has not formed the basis for the award of any degree/Diploma/Associate ship/Fellowship of similar title to any candidate of this University.</p> <p>Place: Palani Date: 10/04/17</p> <p>Head of the Department Signature of the Guide (Dr. P. Kokila)</p> <p>External Examiner Internal Examiner</p>
<p align="center">2</p>	<p><b>ELIZABETH. M</b> <b>B5E16302</b></p> <p><b>UNDER THE GUIDANCE OF</b> <b>Mrs. S. ANITHA</b></p>	<p align="center"><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "AC IMPEDANCE AND DIELECTRIC SPECTRAL ANALYSIS OF COMPOSITE POLYMER ELECTROLYTE FOR LITHIUM ION BATTERIES" is a bonafied work done by ELIZABETH.M (REG.NO.B5E16302), Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani – 624 601 and submitted for the partial fulfillment of degree of Master of Science in Physics to the Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017.</p> <p>This dissertation is an original work of the candidate and to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associate ship, fellowship or other similar titles in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p>Place: Palani, Date: 7/4/2017</p> <p>Guide (ANITHA. S)</p> <p>EXTERNAL EXAMINERS:</p>

  
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<p>3</p>	<p><b>KANCHANA. G</b> <b>BSE16303</b></p> <p><b>UNDER THE GUIDANCE OF</b> <b>Mrs. R. PREMILA</b></p>	 <p style="text-align: center;"><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "PREPARATION AND CHARACTERIZATION OF COMPOSITE POLYMER ELECTROLYTE FOR LITHIUM ION BATTERIES" is a bonafide work done by GOWTHAM. R. (REG. NO. BSE16308) and KANCHANA. G. (REG. NO. BSE16303), Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani - 624601 and submitted for the partial fulfillment of degree of Master of Science in Physics in the Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017.</p> <p>This dissertation is an original work of the candidate and to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associateship, fellowship or other similar titles in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p>Place: Palani Date: 12/01/2017</p> <p style="text-align: right;">Guide <i>(R. PREMILA)</i></p> <p style="text-align: center;">INTERNAL EXAMINERS:</p>
<p>4</p>	<p><b>NIVETHA. S</b> <b>BSE16304</b></p> <p><b>UNDER THE GUIDANCE OF</b> <b>Dr. K. KULATHURAN</b></p>	 <p style="text-align: center;"><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "MORPHOLOGICAL, OPTICAL AND ELASTIC PROPERTIES OF POROUS SILICON" is a bonafide work done by NIVETHA. S. (Reg. No. BSE16304), VADIVELM (Reg. No. BSE16313), AMEER HAMSAN.P. (Reg. No. BSE16307), Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani - 624 601 and submitted for the partial fulfillment of degree of Master of Science in Physics in the Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017.</p> <p>This dissertation is an original work of the candidate and to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associateship, fellowship or other similar titles in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p>Place: Palani Date: 07/04/2017</p> <p style="text-align: right;"><i>(Dr. K. KULATHURAN)</i></p>

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5	<p>PRIYANKA. R B5E16305</p> <p>UNDER THE GUIDANCE OF Dr. M. RAMESH BABU</p>	<p style="text-align: center;"><b>CERTIFICATE</b></p> <p>This is to certify that the dissertation entitled "GROWTH AND CHARACTERIZATION OF POTASSIUM ACID PHTHALATE (KAP) SINGLE CRYSTALS", is a bonafied record of the original research work done by Miss. R.PRIYANKA( REG.NO. B5E16305), during the Academic year July 2016 to April 2017 of her study in the Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani, under my guidance and the Project work has not formed the basis for the award of any Degree/Diploma/Associate ship/Fellowship of similar title to any candidate of any University.</p> <p>Place : Palani Date : 11.04.17</p> <p> Head of the Department</p> <p> Signature of the guide</p> <p> External Examiner</p> <p> Internal Examiner</p>
6	<p>SUHIRTHA. V B5E16306</p> <p>UNDER THE GUIDANCE OF Dr. M. RAMESH BABU</p>	<p style="text-align: center;"><b>CERTIFICATE</b></p> <p>This is to certify that the dissertation entitled "GROWTH AND CHARACTERIZATION OF POTASSIUM ACID PHTHALATE (KAP) SINGLE CRYSTALS", is a bonafied record of the original research work done by Miss. V.SUHIRTHA ( REG.NO. B5E16306), during the Academic year July 2015 to April 2017 of her study in the Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani, under my guidance and the Project work has not formed the basis for the award of any Degree/Diploma/Associate ship/Fellowship of similar title to any candidate of any University.</p> <p>Place : Palani Date : 11.04.17</p> <p> Head of the Department</p> <p> Signature of the guide</p>

  
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<p>7</p>	<p><b>AMEERHAMSAN B5E16307</b></p> <p><b>UNDER THE GUIDANCE OF Dr. K. KULATHURAAAN</b></p>	<p>Dr. K. KULATHURAAAN, M.Sc., M.Phil., Ph.D. Assistant Professor Department of Physics Arulmigu Palaniandavar College of Arts and Culture Palani - 624 601.</p> <p><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "MORPHOLOGICAL, OPTICAL AND ELASTIC PROPERTIES OF POROUS SILICON" is a bonafied work done by NIVETHA, B (Reg. No. B5E16304), VADIVELM (Reg. No. B5E16313), AMEER HAMSAN, P (Reg. No. B5E16307), Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani - 624 601 and submitted for the partial fulfillment of degree of Master of Science in Physics to the Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017.</p> <p>This dissertation is an original work of the candidate and to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associateship, fellowship or other similar titles in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p>Place: Palani. Date: 27-04-2017</p> <p><i>K. Kulathuraan</i> (KULATHURAAAN, K)</p>
<p>8</p>	<p><b>GOWTHAM. R B5E16308</b></p> <p><b>UNDER THE GUIDANCE OF Mrs. R. PREMILA</b></p>	<p><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "PREPARATION AND CHARACTERIZATION OF COMPOSITE POLYMER ELECTROLYTE FOR LITHIUM ION BATTERIES" is a bonafied work done by GOWTHAM, R (REG.NO.B5E16308) and KANCHANA, G (REG.NO.B5E16303), Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani - 624601 and submitted for the partial fulfillment of degree of Master of Science in Physics to the Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017.</p> <p>This dissertation is an original work of the candidate and to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associateship, fellowship or other similar titles in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p>Place: Palani. Date: 27-04-2017</p> <p><i>R. Premila</i> (R.PREMILA)</p> <p>INTERNAL EXAMINERS:</p>

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<p>9</p>	<p><b>JEGATHEESWARAN. P</b> <b>B5E16309</b></p> <p><b>UNDER THE GUIDANCE OF</b> <b>Mrs. S. ANITHA</b></p>	
<p>10</p>	<p><b>MANOJBABU. V</b> <b>B5E16310</b></p> <p><b>UNDER THE GUIDANCE OF</b> <b>Mr. V. RAMALINGAM</b></p>	

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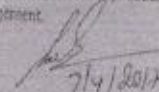
<p>11</p>	<p><b>MANOJ KUMAR. S</b> <b>BSE16311</b></p> <p><b>UNDER THE GUIDANCE OF</b> <b>Lt. K. PAKIYARAJ</b></p>	<p>Lt. K. PAKIYARAJ Associate Professor Department of Physics Arulmigu Palaniandavar College of Arts and Culture, Palani - 624 601.</p> <p><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "EFFECT OF MIXED METAL OXIDE ION FILMS BY SPRAY PYROLYSIS TECHNIQUE" is a bonafide work done by S.MANOJKUMAR (REG. NO. BSE16311) and K.VIJINESHWARAN (REG. NO. BSE16312), Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani - 624 601 and submitted for the partial fulfillment of degree of Master of Science in Physics in the Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017. This dissertation is an original work of the candidate and to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associate ship, fellowship or other similar title in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p>Date: Palani, 10.04.2017</p> <p><i>(Signature)</i> Lt. K. PAKIYARAJ</p>
<p>12</p>	<p><b>PRABHAKARAN. S</b> <b>BSE16312</b></p> <p><b>UNDER THE GUIDANCE OF</b> <b>Mr. V. RAMALINGAM</b></p>	<p>Mr. V. RAMALINGAM, M.Sc., M.Phil., B.Ed., Associate Professor, Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani - 624 601.</p> <p><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "STRUCTURAL OPTICAL AND ACUSTICAL PROPERTIES OF POROUS SILICON BY STRAIN ETCHING METHOD" is a bonafide work done by Mr. MANOJ BABU V. (REG. NO. BSE16310), PRABHAKARAN S. (REG. NO. BSE16312), and Mr. VIJAYAKUMAR C. (REG. NO. BSE16315), Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani and submitted for the partial fulfillment of degree of Master of Science in Physics in the Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017. This dissertation is an original work of the candidate and, to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associate ship, fellowship or other similar title in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p>Date: Palani, 10.04.2017</p> <p><i>(Signature)</i> Signature of the Guide (RAMALINGAM, V.)</p>

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<p>13</p>	<p>VADIVEL. M B5E16313</p> <p>UNDER THE GUIDANCE OF Dr. K. KULATHURAAAN</p>	<p>Dr. K. KULATHURAAAN, M.Sc., M.Phil., Ph.D. Assistant Professor Department of Physics Arulmigu Palaniandavar College of Arts and Culture Palani - 624 601.</p> <p style="text-align: center;"><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "MORPHOLOGICAL, OPTICAL AND ELASTIC PROPERTIES OF POROUS SILICON" is a bonafide work done by NIVETHA. S (Reg. No. B5E16304), VADIVEL.M (Reg. No. B5E16313), AMEER HAMSAN.P (Reg. No. B5E16307), Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani - 624 601 and submitted for the partial fulfillment of degree of Master of Science in Physics to the Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017.</p> <p>This dissertation is an original work of the candidate and to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associate ship, fellowship or other similar titles in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p>Place: Palani. Date: 07-09-2017</p> <p style="text-align: right;"><i>K. Kulathuraan</i> <b>(KULATHURAAAN, K)</b></p>
<p>14</p>	<p>VIGNESHWARAN. K B5E16314</p> <p>UNDER THE GUIDANCE OF Lt. K. PAKIYARAJ</p>	<p>Lt. K. PAKIYARAJ Assistant Professor Department of Physics Arulmigu Palaniandavar College of Arts and Culture Palani - 624 601.</p> <p style="text-align: center;"><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "FABRICATION OF MIXED METAL OXIDE THIN FILMS BY SPRAY PYROLYSIS TECHNIQUE" is a bonafide work done by S.MANJURUSARASU (B5E16311) and K.VIGNESHWARAN (Reg. No. B5E16314), Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani - 624 601 and submitted for the partial fulfillment of degree of Master of Science in Physics to the Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017. This dissertation is an original work of the candidate and to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associate ship, fellowship or other similar titles in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p>Place: Palani. Date: 10-09-2017</p> <p style="text-align: right;"><i>Lt. K. Pakiyaraj</i> <b>(K. PAKIYARAJ)</b></p>

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<p>15</p>	<p>VIJAYAKUMAR. C B5E16315</p> <p>UNDER THE GUIDANCE OF Mr. V. RAMALINGAM</p>	<p>Mr. V. RAMALINGAM, M.Sc., M.Phil., B.Ed., Associate Professor, Department of Physics, Arulmigu Palaniandavar College of Arts and Culture, Palani - 624 601.</p> <p style="text-align: center;"><b>CERTIFICATE</b></p> <p>This is to certify that the project report entitled "STRUCTURAL OPTICAL AND CHEMICAL PROPERTIES OF POROUS SILICON BY STRAIN ETCHING METHOD" is a bonafide work done by Mr. MANOJABARUV (REG.NO.B5E16310), Mr. PRABAKARAN S (REG.NO.B5E16312), and Mr. VIJAYAKUMAR, C (REG.NO.B5E16315) Department of Physics, Arulmigu Palaniandavar College of Arts and Culture and submitted for the partial fulfillment of degree of Master of Science in Physics at Madurai Kamaraj University, Madurai, under my supervision and guidance during the academic year 2016-2017.</p> <p>This dissertation is an original work of the candidate and to the best of my knowledge has not been submitted in part or in full, for any diploma, degree, associate ship, fellowship or other titles in this or any other university. No portion of the dissertation is a reproduction from any other source, published or unpublished without acknowledgement.</p> <p style="text-align: right;">         2/4/2017        Signature of the Guide        (RAMALINGAMLV)     </p>
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