



डा० ए०पी०जे० अब्दुल कलाम प्राविधिक विश्वविद्यालय, उत्तर प्रदेश, लखनऊ  
Dr. A.P.J. Abdul Kalam Technical University, Uttar Pradesh, Lucknow  
(Formerly Uttar Pradesh Technical University)



## VISVESVARAYA RESEARCH PROMOTION SCHEME 2016-17

### 1. Basic Details

Institute : Noida Institute of Engg. & Technology, Gautam Buddh Nagar (133 )  
Email Id : nietadmissions@niet.co.in  
Telephone/Mobile No : 9268115116  
Reference of Extension of Approval letter for the current year :  
Does the institute have an AKTU approved PG Course under which the proposal for the VRPS is requested :

### 2. Details of the Principal Investigator(PI)

AadharCard No :	447448938317	Name of the PI :	AVIJIT MAZUMDER
Department :	Bachelor of Pharmacy	Appointment Type :	Regular
DOB :	23-Jan-1971	Gender :	Male
Email Id :	avijitmazum@yahoo.com	Mobile No :	9871773644
PAN No :	AELPM2366L	Whether any ongoing AKTU sponsored VRPS project by the PI :	NO

### 3. Details of the PG course under which the VRPS proposal is requested

Title of the Project Proposal :

Name of the Lab where the research would be conducted : PHARMACOLOGY LAB

The Department under which is the Lab is established :

AICTE approved PG Course of the department under which is the research is to be conducted : M.Pharma

### 4. Academic credentials of PI \*\*

Parameter	Values
PG	PHARMACOLOGY
Ph.D	PHARMACY
Teaching Experience in Years	TWENTY YEARS
Research and Industrial Experience in years	TWENTY YEARS
Number of Publications in last 3 years (National/International journals)	THIRTY EIGHT
Number of Patents Registered	ONE APPLIED
Number of Ph.D students guided	THREE PHD STUDENTS AWARDED FROM UTTARAKHAND TECH UNIV DEHRADUN AND FIVE PERUSING PHD
Membership of the Professional/Learned/Bodies/Societies	INDIAN PHARMACEUTICAL ASSOCIATION AND ASSOCIATION OF PHARM TEACHERS OF INDIA ETC
Awards	BEST PAPER AWARDED IN INDIAN PHARMACEUTICAL CONGRESS

#### 5. Credential of Institution/Department

Parameter	Values
Type of Institute	AFFILIATED
Research projects completed in last 5 years	NIL
Consultancy projects completed in last 5 years	NIL
Whether the PG course under which the proposal is submitted is accredited by NBA?	NO

#### 6. Facilities/Equipment available in the department in the area of proposed research

S.No.	Type	Name of Equipment/Software
1	Equipment	1. Ampoule washing machine
2	Equipment	Bulk density Apparatus
3	Equipment	28. Dissolution Apparatus (8 Station)
4	Equipment	32. Dissolution apparatus (8 station) TDT-08L with Electrolab 01 with i-Disso Camera & 1.3 MP
5	Equipment	31. Disintegrator
6	Equipment	37. Disintegration app.(Double basket)
7	Equipment	41. Electronics Balance 0.1mg
8	Equipment	49. F.T.I.R with Hydraulic press
9	Equipment	123. Tablet machine 16 station (Rotary)
10	Equipment	Digital Bench Top Centrifugal Machine Alfa Scientific Industries 19/02/2016
11	Equipment	Refrigerated Centrifuge Alfa Scientific Industries 2/2/2016
12	Equipment	B.O.D. Incubator(old) Alfa Scientific Industries 2/2/2016

Parameter	Values
Objectives and Relevance of the Research project	OBJECTIVE: In this investigation, different extracts of Trapa species would be assessed for antioxidant and anticancer activities. This will be followed by isolation and characterization of the active compound(s) from the active extract using chromatographic techniques and IR, NMR and Mass Spectroscopy, respectively. The main objective of the work is a) Extraction and isolation of pure phytochemical(s) from the plant parts used. b) Study on the antioxidant and anticancer activities of the crude extracts and the isolated compound(s) of the same.
Expected Outcome	OUTCOME: The project will lead to isolation of active constituent(s) and proper authentication of the compound(s) for treating deadly diseases and to overcome other disabilities associated with them. Thus the project will lead to the emergence of new anticancer compound(s) which may block the cell renewal process caused by induction of oxidation and proliferation of cells through reactive oxygen species.
Research Methodology	In this investigation, different extracts of Trapa species would be assessed for antioxidant and anticancer activities. This will be followed by isolation and characterization of the active compound(s) from the active extract using chromatographic techniques and IR, NMR and Mass Spectroscopy, respectively.
Technical novelty and utility	As the plant (Trapa species) has not been explored up to that extent, much work has not yet been carried out on the species. Comparatively, as sufficient work has been carried out on other plant species and those works had already been patented, it is predicted that this project will lead to some novel findings with respect to anticancer research that can be patented in the near future.
Possible patentability of the research outcome	Nowadays more emphasis is being given on compound(s) which are obtained from natural sources, as they lead to lesser side effects and greater therapeutic value as compared to those of the synthetic compounds. The former can be commercialized and formulated in suitable dosage forms to improve the health status of patients suffering from cancer and other deadly diseases to lead a better life.

#### 7. Budget Estimates-Non Recurring

Proposed Equipment's	Specifications	No. Of Units	Estimated Cost
Liquid Nitrogen Vapour Storage System	(i) Liquid Nitrogen Supply Tank • 120 Liters Capacity, 22 PSI Liquid Delivery (ii) NPN	1	3.00
CO2 Cell Culture Incubator	Exterior Dimensions (mm) : 630 x 920 x 680 (W x H x D) ? Interior Dimensions (mm) : 470 x 640 x 480	1	1.50
Rotary Evaporator	With Temperature Controlled Water Bath (Double Walled)	1	0.50

**8. Recurring Budget**

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Request for Recurring Budget : No

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**9. Attachment Uploaded**

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[View PI Resume](#)

[View Institute Details](#)

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