

# COMPILATION OF PROFILES OF PHARMA ACADEMICIANS INTERESTED/ENGAGED IN ACADEMIC-INDUSTRY COLLABORATIONS



A project sponsored by DST - NSTMIS [DST/NSTMIS/05/198/2016-17 (G)]

#### **PROJECT SPONSORED BY**



National Science & Technology Management Information System (NSTMIS) A Division of Department of Science and Technology (DST)

#### **EXECUTED BY**

DR. NEELESH MALVIYA Principal Investigator

MR. NIKKKEE CHHATTANI Research Consultant MR. ANKIT MANGAL Research Assistant



Smriti College of Pharmaceutical Education, Indore

4/1 Pipliya Kumar Mayakhedi, MR-11, Dewas Naka, Indore (M.P.)

## Content

Preface			3-6				
Acknowledg	ement		7				
Executive Su	ımmary	1	8-9				
Chapter 1:	Introduction & Background						
	1.1	Introduction	10-11				
	1.2	Project objective	11				
	1.3	Expected benefits of the study	11-12				
	1.4	Methodology	12-13				
	1.5	Project Team	13				
	1.6	Host Institute	13				
	1.7	Local Project Advisory Committee	14				
	1.8	Limitations of the study	14-15				
Chapter 2:	Intera	active Website www.spaics.in	16-				
	2.1	Overview of the website www.spaics.in	16-33				
		2.1.1 Basic features	27				
		2.1.2 New user registration- Registration form	27-28				
		2.1.3 Registered user- login	28-29				
		2.1.4 Registered user- add profile	29-30				
		2.1.5 Search profile	31				
		2.1.6 Analysis	31				
		2.1.7 Who can use the website?	31				
		2.1.8 Data bank details	32-33				
	2.2	How to use the website?	34-35				
		2.2.1 How to register online?	34				
		2.2.2 How to login?	34				
		2.2.3 How to add profile?	34				
		2.2.4 How to search profile?	35				
Chapter 3:	Pharr	nacy institution in India- An analysis	36-38				
	3.1	Pharmacy institutions in India- State wise distribution	36-38				
Chapter 4:	Pharr	nacy academicians profile- An analysis	39-59				
	4.1	Percentage of pharma academicians registered (Title wise distribution)	39				
	4.2	Percentage of pharma academicians registered (Highest qualification wise distribution)	40				
	4.3	Percentage of pharma academicians registered (Specialization wise distribution)	41				

	4.4	Percentage of pharma academicians registered (Interested in academic-industry collaborative work wise distribution)	42
	4.5	Percentage of pharma academicians registered (Engaged in academic-industry collaborative work wise distribution)	43
	4.6	Percentage of pharma academicians registered (Total teaching experience wise distribution in years)	44
	4.7	Percentage of pharma academicians registered (Total industry experience wise distribution in years)	45
	4.8	Percentage of pharma academicians registered (Total research experience wise distribution in years)	46
	4.9	Percentage of pharma academicians registered (Area of research interest wise distribution)	47-50
	4.10	Percentage of pharma academicians registered (Academic research projects supervised wise distribution)	51
	4.11	Percentage of pharma academicians registered (Academic-industry collaborative projects handled wise distribution)	52
	4.12	Percentage of pharma academicians registered (Government research projects handled wise distribution)	53
	4.13	Percentage of pharma academicians registered (Details of patents published wise distribution)	54
	4.14	Percentage of pharma academicians registered (Details of research publications wise distribution)	55
	4.15	Percentage of major research areas on which you want to collaborate with industries (Research area wise distribution)	56-59
Chapter 5:	Admir	nistration & Maintenance of the Website	60
Chapter 6:	Recon	nmendations	61
Annexures:			62-
	Annex	sure I: Project Information brochure	62-65
	Annex	ture II: Project Questionnaire	66-69

#### Preface

Academia-industry collaboration has persistently a matter of debate in academic and industry. Research done in academia and its translation into marketable products certainly is not new. A high-quality academic research can assist industry to produce economical product to the society. Traditionally, academics were professed as a foundation of innovations and industry act as platform provider to convert those innovations to consumer products. The need for sharing knowledge between research institutions and industry has become increasingly evident in recent years. To translate academic ideas into industrial products the collaboration of research academic institutions and the industry is needed and the academic institute should be permissible by the industries for making more reachable to offered resources.

Our country has a large resource power in sort of all the materials required for a research work to be carried over successfully. We have a large number of well-educated persons in the field of pharmacy; we have our own traditional knowledge, natural resources, large number of student community etc. We have everything but still we can't utilize these why? The simple reason is we don't know the power of each of us and are not utilizing it to the maximum. The major problem in this field is facing is that there is neither a good tie up nor a successful relationship between the companies and the academic institutions in India. There exist only a few relationships in the same in India. Currently, certain research institutions have staffs that actively pursue links with industry, but they lack the interactions amongst themselves and with industries. Though academicians in best institutes engage in research, but maximum of their research is limited to publications or patentability on higher hand, very few are converted into marketed or commercialized products. Therefore if academicians research orientation is as per the need of industry or if academicians work for industrial research it will help to generate more revenue and also help to reduces the time and it will help to reduces the research expenditure of industries.

To accomplish this objective, practically bridging between academia and industries is the solitary solution; industries must encourage and sponsored researches at academic level to translate their innovations into customer products. With this aim an attempt has been taken to compiled and analyzed the database of pharma academicians based on personal details, academic details and professional details including designation, Qualification, Specialization, Expertise, Interested vs. engaged in academia-industry collaborations, Projects handled, Publications, Interest areas of Academic- industry collaborative that can be utilized by Pharma Industries. The created database comprises of academician's details along with their research expertise. The significant database will be useful to foster the academia-industry collaboration, helpful to prove potential of academicians as innovative researchers to fulfill the requirements of Pharma Industries.

Keeping this in view, research team of Smriti College of Pharmaceutical Education, Indore (M.P.) has undertaken a project 'Compilation of profiles of Pharma academicians interested/engaged in academic-industry collaborations" sponsored by National Science & Technology Management Information System (NSTMIS) A Division of Department of Science and Technology (DST) with the aim to compiled and analysed the database of pharma academicians comprises of academician's details along with their research expertise.

[4]

The project was completed under the guidance and observation of local project advisory Committee. Dr. HB Singh, Scientist 'E', Department of Science & Technology, New Delhi was the coordinating officer in DST who monitored the project minutely.

An exclusive website titled www.spaics.in has been developed for the compilation of profiles of pharma academicians. Abovementioned website consists of user login/registration, add profile and search profile features. In user registration feature, pharma academicians can register by using personal information's like title, name, date of birth, highest qualification, specialization, designation, organization, research expertise, corresponding address, email address, mobile number and individual photo. In academic details participant's qualification with specialization is included. While in professional details categorization option interested/ engaged in academic-industry collaborative work, professional experience, research interest, academic projects handle, collaborative projects handle, government projects handle, patents and publications details and details of research areas interested to collaborate with industry are included. In search option viewer can search database by organization detail, designation, qualification, area of specialization, area of expertise and professional experience, while in advance search option audience can search by special keywords. The website also contains an inbuilt system by login user can update the profile continuous basis.

The website contains profiles of 2401 pharma academicians as on date 30<sup>th</sup> October, 2019 who participated and responded to prepared project questionnaire. Based on participation an analysis report has been prepared comprising participation distribution graphical presentation in respect of title, highest qualification, specialization, interested in academic-industry collaborative work, engaged in academic-industry collaborative work, total teaching

experience, total industry experience, total research experience, area of research interest, academic research projects supervised academic-industry collaborative projects handled, government research projects handled, details of patents published, details of research publications and major research areas on which participant want to collaborate with industries. Compilations of profiles of academicians interested/engaged in research will definitely fostered academic-industrial collaborations in India. Through this database industries must understand the potential of academicians which help to shorting the academicians as per their requirements, as well as by seeing the profile of interested academicians in India from the grass root level compiled database of academician's profile will play an important role in future. The significant database will be useful to foster the academia-industry collaboration, helpful to prove potential of academicians as innovative researchers to fulfill the requirements of Pharma Industries.

Indeed, we request you to participate in this sincere and generous collaboration to create effective and relevant database, by providing details about your expertise comprising personnel, academic and professional aspects. We assure you that this collaboration will be helpful to achieve great collective goals for growth of pharma Profession.

> **Dr. Neelesh Malviya** Principal Investigator

[6]

## Acknowledgement

#### LOCAL PROJECT ADVISORY COMMITTEE

Prof. TR Saini,

Head, Department of Pharmacy, Shri GS Institute of Technology and Science, Indore **Prof. Rajesh Sharma**,

Head, School of Pharmacy, Devi Ahilya Vishwavidyalaya, Indore

Dr. Arun K Gupta,

Principal, School of Pharmacy, Dr APJ Abdul Kalam University, Indore

#### Prof. Neetesh K Jain,

Department of Pharmacy, Oriental University, Indore

#### Prof. Rajesh Jangalwa,

Prestige Institute of Management and Research, Indore

Dr. HB Singh,

Department of Science & Technology, Technology Bhawan, New Delhi

#### Dr. Naveen K Choudhary,

Department of Pharmacy, Mandsaur University, Mandsaur

### Dr. Meena Sharma,

Computer Engineering Department, Institute of Engineering and Technology, Devi Ahilya Vishwavidyalaya, Indore

Shri. Manoj Kanungo, Management Representative, Smriti College of Pharmaceutical Education, Indore

#### Dr. Neelesh Malviya,

Smriti College of Pharmaceutical Education, Indore (For expert guidance, criticism & encouragement)

#### RESPONDENTS

Academicians of Pharmacy institutions of entire country (For participating in the study)

#### **FUNDING AGENCY**

National Science & Technology Management Information System (NSTMIS) A Division of Department of Science and Technology (DST) (For financial support)

#### **HOSTED INSTITUTE**

**Smriti College of Pharmaceutical Education, Indore** (For providing necessary facilities to accomplish the study)

#### **Executive summary**

- 1. Today, industries are trying to track down innovative solutions from the academia to assist them in efficient manner with higher productivity and lower costs. A pragmatic way to bridge the gap is that industries should approach academician to spend time at their facility to solve their problems and issues. This development is not possible without the database comprising of profile of academicians interested or engaged especially in industrial oriented research work. In India, Present-day necessity is to fall in line and bridge the gap between academics and industries.
- 2. Research team of Smriti College of Pharmaceutical Education, Indore (M.P.) was undertaken a project 'Compilation of profiles of Pharma academicians interested/engaged in academic-industry collaborations" sponsored by National Science & Technology Management Information System (NSTMIS) A Division of Department of Science and Technology (DST) with the aim to The created database comprises of academician's details along with their research expertise.
- 3. Pharmacy academicians from entire country were called for participation with the capacity of respondents in the study.
- 4. A web portal <u>www.spaics.in</u> was developed along with features of user login, add profile and searching features. Respondents information's has been collected through specially designed questionnaire, comprising personal information's, academic details and professional details.
- Project report compiled and summarized the analysis of Pharmacy institution in India based on approved Pharmacy institution in India, State wise distribution of approved Pharmacy institute and Course wise classification of Pharmacy institute.
- 6. Pharmacy academicians of approved institutions from entire country were approached to collect the information's with the help of e-mail, mailing of hard copy of brochure, personal visits, interactions in pharma conferences, telephone calls, SMS, whats-app

messaging and social media networking like linkedin, facebook etc.

- 7. The website contains profiles of 2401 pharma academicians as on date 30<sup>th</sup> October, 2019 who participated and responded to prepared project questionnaire. Pharmacy academicians information's has been collected and an analyses report including Designation distribution, Qualification distribution, Specialization distribution, Expertise distribution, Interested vs. engaged in academia-industry collaborations, Projects distribution, Publication distribution, Interest areas of Academic- industry collaborative distribution was prepared.
- 8. From the data collected it has been analyzed that academicians in best institutes engaged in academic research, but on higher end maximum of their research is limited to publications or patentability, very few are transformed into marketed or commercialized products.
- 9. The responses from academicians also revealed that they are interested to do research work at pilot scale for pharma industries if industries provided funding for development of research facilities like lab infrastructure and instrumentations.
- 10. The developed website would require future enhancements for optimal use of the data by the industry and academic institutions to strengthen the academia-industry collaborations to fasten the research and innovations in pharmaceutical field.

## **Chapter 1: Introduction & Background**

#### 1.1 Introduction

Academia-industry collaboration has persistently a matter of debate in academic and industry. Research done in academia and its translation into marketable products certainly is not new. A high-quality academic research can assist industry to produce economical product to the society. Traditionally, academics were professed as a foundation of innovations and industry act as platform provider to convert those innovations to consumer products. The need for sharing knowledge between research institutions and industry has become increasingly evident in recent years. To translate academic ideas into industrial products the collaboration of research academic institutions and the industry is needed and the academic institute should be permissible by the industries for making more reachable to offered resources. Our country has a large resource power in sort of all the materials required for a research work to be carried over successfully. We have a large number of well-educated persons in the field of pharmacy; we have our own traditional knowledge, natural resources, large number of student community etc. We have everything but still we can't utilize these why? The simple reason is we don't know the power of each of us and are not utilizing it to the maximum. The major problem in this field is facing is that there is neither a good tie up nor a successful relationship between the companies and the academic institutions in India. There exist only a few relationships in the same in India. Currently, certain research institutions have staffs that actively pursue links with industry, but they lack the interactions amongst themselves and with industries. Though academicians in best institutes engage in research, but maximum of their research is limited to publications or patentability on higher hand, very few are converted into marketed or commercialized products. Therefore if academicians research orientation is as per the need of industry or if academicians work for industrial research it will help to generate more revenue and also help to reduces the time and it will help to reduces the research expenditure of industries.

#### **1.2 Project objective**

Interactions between the pharmaceutical academics and pharmaceutical industry have been gradually increasing over the past decade. These can vary from contractual research to collaborative research or even to structured partnerships. To convert these interactions into legal collaborations appropriate connection or regular linking between both is necessitated. With this aim the proposal is designed to create database of profiles of Pharmacy Profession Academicians interested/ engaged in academic-industrial collaborations for enhancing the sharing of their interest or potential among industrial peoples.

#### The main objective of the proposed project is:

To collect and compile profiles of Pharmacy Profession Academicians interested/ engaged in academic-industrial collaborations.

#### **1.3 Expected benefits of the study**

- Database of Pharmacy Profession Academicians interested /engaged in academiaindustry collaborations will be prepared
- Database of Pharmacy Profession Academicians along with their research interest/ expertise will facilitate to make use of their research knowledge for additional academia-industry collaborations

- Database consists of contact information's of Pharmacy Profession Academicians that could be helpful to contact them in a very short time for further research and academic-industrial collaborations
- Through database the selection of right Pharmacy Profession Academicians for right research work become easy

## 1.4 Methodology

1. Target population	Academicians of Pharmacy Profession
2. Method of data collection	<ul> <li>Data were collected though mailing and developed website using structured questionnaire specially designed for project</li> <li>Project information brochure along with sample questionnaire was sent to the pharmacy institutions to convey them about project objectives, outcome, and benefits.</li> <li>An exclusive website titled www.spaics.in was developed for the collection of prescribed data</li> <li>A Local Project Advisory Committee (LPAC) was constituted under the Chairmanship of Prof. TR Saini, Head, Department of Pharmacy, Shri GS Institute of Technology and Science, Indore.</li> <li>Research team participated in various pharma</li> </ul>

conferences, seminars and pharma events for the						
collection of data as well as to motivate academicians for						
their active participation.						
The information collected in various steps was compiled						
tabulated, analyzed and draft report prepared. This was						
presented through power point to the LPAC members in the						
meetings for their comments and suggestions.						

#### 1.5 Project Team

#### Dr. Neelesh Malviya

Principal Investigator, DST-NSTMIS Project

Professor and Principal, Smriti College of Pharmaceutical Education, Indore

#### Mr. Nikkkee Chhattani

Research Consultant, IT Expert

#### Mr. Ankit Mangal

**Research Assistant** 

1.6 Host Institute



#### Smriti College of Pharmaceutical Education, Indore

AICTE & PCI Approved | Affiliated to RGPV

4/1 Pipliya Kumar Mayakhedi, MR-11, Dewas Naka, Indore (M.P.)

T. 0731 2802467 | E. Princial@scopeindore.info |W. www.scopeindore.info

#### **1.7 Local Project Advisory Committee**

A local Project Advisory Committee (LPAC) was set up to advise and guide GESS from time to time during the execution of the study. The details of the team are given below: LPAC Team:

- Prof. TR Saini, Head, Department of Pharmacy, Shri GS Institute of Technology and Science, Indore
- 2. Prof. Rajesh Sharma, Head, School of Pharmacy, Devi Ahilya Vishwavidyalaya, Indore
- 3. Dr. Arun K Gupta, Principal, School of Pharmacy, Dr APJ Abdul Kalam University, Indore
- 4. Prof. Neetesh K Jain, Department of Pharmacy, Oriental University, Indore
- 5. Prof. Rajesh Jangalwa, Prestige Institute of Management and Research, Indore
- 6. Dr. HB Singh, Department of Science & Technology, Technology Bhawan, New Delhi
- 7. Dr. Naveen K Choudhary, Department of Pharmacy, Mandsaur University, Mandsaur
- Dr. Meena Sharma, Computer Engineering Department, Institute of Engineering and Technology, Devi Ahilya Vishwavidyalaya, Indore
- Shri. Manoj Kanungo, Management Representative, Smriti College of Pharmaceutical Education, Indore

#### **1.8 Limitations of the study**

 Pharma academicians from various institutions were approached but only few academicians have been participated, in spite of the best efforts and repeated reminders, phone calls, emails and Messages.

- Maximum numbers of academicians are from private institutions they replied they are not interested in academic- industry collaborative work due to stability issues of job.
- 3. Most of the academicians approached were reluctant to fill the questionnaire, reason was found that pharma industries in India not interested to collaborate with Indian institutes because of lack of research facilities. Due to that reason they don't have enough data to fill questionnaire so they were not interested to participate in the study.
- 4. Academicians not completely filled the data related to research interest, academic projects handle, collaborative projects handle, government projects handle, patents and publications details and details of research areas interested to collaborate with industry. The Compilation of incomplete data according to prescribed format of website has taken extra efforts to make data uniform.
- Analysis of data for website has taken long time since a number of academicians did not fill the questionnaire according to prescribed format.

## **Chapter 2: Interactive Website www.spaics.in**

2.1 Overview of the website www.spaics.in:

- Home Page
- PI Message Page
- About Project Page
- About Institute Page
- FAQ Page
- Search Profile Page
- Login Page
- Add Profile Page
- Analysis



#### Home Page



About Project

#### About Us



Today, industries are trying to track down innovative solutions from the academia to assist them in efficient manner with higher productivity and lower costs. A pragmatic way to bridge the gap is that industries should approach academician to spend time at their facility to solve their problems and issues. This development is not possible without the database comprising of profile of academicians interested or engaged especially in industrial oriented research work. In India, Present-day necessity is to fall in line and bridge the gap between academics and industries. Compilations of profiles of academicians interested/engaged in research will absolutely stimulate association between both of them.



[17]

#### PI Message Page



#### About Project Page



#### About Institute Page



#### FAQ Page



## > User registration Page

Eile Edit View History Bookmarks Tools Help SPALCS. × +			- 0 ×
← → C <sup>a</sup> ⓓ ⓓ Gatting Started ⓑ Image result for eid m	login	E 60% ···· 🛛 🏠	₩\ 🖾 🌒 🗏
A most visited Vetting statted V mage result for the m	SPAICS Synergizing Pharma Academic - Industry Collaboration Systems	ፍ. (+91)98263 19555 🔳 pi@spilitsi	n 🔳 dmeeleshmatviye@gmaï.com
	**************************************	agin Analysis	
	Login		
		AL	
	Login Information		
	Email		
	Pessword Realitization		
	About Institute Our Link Contra Seril: Callege of Pharmanetical Education, Indexe (SCOPR) Home Contra	nct Us 1 98263 19555	
	is a premir institute of Central India, investing About Institute About Institute Premiseutical Goldscine in a califyrammer to Sin obs. About Project. In the Central premises the ministration of prevalence Premises and prevale press. SCIPE India.	Øspaiss in nenieshmälviya@gmail.com	
	wer franzlei im 1997 under the augus of 81 Rinkhals Sonti. Senstelan werd an alleptitely Education for AL <sup>4</sup> . Rinkel Name		
	Copyright & 2017. All Hydra Newrond. Developed by	. Fig Safhure Soldion	
P Type here to search	o 🖽 📮 🥅 😭 🏫 🔒 🐚 🝘	A 🖨	■) (1) ENG 10:50 AM
File Edit Wew Higtory Ecolomarks Jools Help SPAICS. <b>X +</b>			- 0 X
Elle Edit View History Bookmarks Tools Help SPAICS. $X + $ $( \leftarrow ) \rightarrow C^{2}$ $( \diamond )$ $( \bigcirc M $ spaics.in) $( \leftarrow ) \rightarrow C^{2}$ $( \diamond )$ $( \bigcirc M $ spaics.in) $( \leftarrow ) \rightarrow C^{2}$ $( \diamond )$ $( \leftarrow )$ $( \neg )$ mage result for eld m	/registration	····· ··· ··· ··· ··· ··· ··· ☆	- <i>o</i> ×
Elle     Edit     View     Higtory     Bookmarks     Tools     Help       SPALCS.     ×     +       ←     →     C     ①     Ø spales.ing       Ø     Most Visited     Ø Getting Started     G     Image result for eid m.	/registration  SPAICS Synergizing Pharma Academic - Industry Collaboration Systems	60%) ···· ② ☆ 、041 9553 1955 ● p@quecan e	- 0 ×
File       Edit       Yiew       Higtory       Bookmarks       Tools       Help         SPALCS.       X       + $(\leftarrow) \rightarrow$ C $\bigcirc$ $\bigcirc$ $\checkmark$ $\bigcirc$ $\checkmark$ $\bigcirc$ $\checkmark$ $\bullet$ $(\leftarrow) \rightarrow$ C $\bigcirc$ $\bigcirc$ $\bigcirc$ $\checkmark$ $\bigcirc$ $\checkmark$ $\checkmark$ $\bullet$ $\checkmark$ Most Visited $\bigcirc$ Getting Started $\bigcirc$ Image result for eld m.	Specific Systems         Synergizing Pharma Academic - industry Collaboration Systems           Home         Pitessage         Aloud Pright         Aloud Pright         Aloud Pright         May         Systems	රොතු ංං ලා රූ ං ලංච (ALS) 1955 ක පුංචලංසයා ර pn Andgos	O X
Elle [dit View Higtory Bookmarks [pools Hellp SPALCS. × + ← → C û Ø Spaics.inv Ø Most Visited Ø Getting Started Ĝ Image result for eid m.	Avegistration The Space Synergizing Pharma Academic - Industry Collaboration Systems Hore PI Message About Pagent About statute 740 Search Pagine Los Registration	(65%) ···· ☑ ☆ • 1410 \$825 1555 ■ pi@queta.h ( yn Andyss	- C ×
File       Edit       Yiew       Higtory       Bookmarks       Tools       Help         SPALCS.       X       +            ←         →        C       Image: Constraints       Tools       Most Visited            Ø Most Visited          @ Getting Started       G Image result for eld m.	Aregistration The Second Secon	(65%) С Д . (+97.903) 1955 В рабренска и уп Анара	C ×
File       ¥ (dit. Yulew Higtory Bookmarks Tools Help         SPALCS.       ×         ←       →       C         ∲       →       C       ©         Ø       Most Visited       © Getting Started       G       Image result for eld m.	Spaces         synergizing Pharma Academic - Industry Collaboration Systems           More         R Message         About Instalute         FMQ         Search Profile         Los           More         R Message         About Instalute         FMQ         Search Profile         Los           Registration         Registration         Registration         Registration	(65%) ••• ♥ ☆ • (+4190319551 ● po@ora.h ( # Andos	
Ele       Edt. View Higtory Bookmarks Tools Help         SPALCS.       ×         ←       →       ©       &         ♥       O       &       D       &         ♥       Most Visited       ©       Getting Started       ©       Image result for eid m.		(60%) *** (○ ☆) 4. (-41) 9000 19053 ■ po@genci.h ( gn Anigota	- 0 ×
Ele [dit Xiew Higtory Bookmarks [pools Help SPALCS. X + ← → C û Ø Ø spaics.in/ ♥ Most Visited Ø Getting Started Ĝ Image result for eid m.		60% ···· ⊙ ☆ 4. (-41)903019553 ■ pa@queck.r. ( m Ardyss	- 0 ×
File [sift View Higtory [cockmarks [sools Help         SPALCS.       X         (+)       Image: Cockmarks [sools Help         (+)       Image: Cockmarks [sools [sools Help	Aregistration Tree Tree Tree Tree Tree Tree Tree Tre	60%	
File       Edit       Yiew       Higtory       Bookmarks       Tools       Help         SPALCS.       ×       +            ← → C	Aregistration  T  T  T  T  T  T  T  T  T  T  T  T  T	(60%)	
Elle       Edit       Yiew       Higtory       Bookmarks       Dools       Help         SPALCS.       X       +            ←       →       C       Image result for eid m.         Image result for eid m.       Image result for eid m.	Aregistration T T	(60%)       ···· · · · · · · · · · · · · · · · · ·	- 0 × M ⊡ (s) ≡ 4 demonstrational/parent.com
File       [dit: View Higtory       [Cookmarks       [Cooks       Help         SPALCS.       X       +         (+)       →       (*)       (*)       (*)         (*)       →       (*)       (*)       (*)       (*)         (*)       →       (*)       (*)       (*)       (*)         (*)       →       (*)       (*)       (*)       (*)         (*)       →       (*)       (*)       (*)       (*)         (*)       →       (*)       (*)       (*)       (*)         (*)       →       (*)       (*)       (*)       (*)         (*)       →       (*)       (*)       (*)       (*)         (*)       →       (*)       (*)       (*)       (*)         (*)       →       (*)       (*)       (*)       (*)         (*)       (*)       (*)       (*)       (*)       (*)         (*)       (*)       (*)       (*)       (*)       (*)         (*)       (*)       (*)       (*)       (*)       (*)         (*)       (*)       (*)       (*)       (*)       (*)		Image:	

[20]

File Edit View History Roo	okmarkt Tools Heln					
SPALCS.	× +					
(←) → ♂ @	🕖 🔏 spaics.ir	/registration			60% … 🖂 🏠	II\ 🗉 🛎 🚍
🌣 Most Visited 🧕 Getting S	itarted G Image result for eid m					
		SPAICS Article Synergizing Pharma Acad	lemic - Industry Collaboration System:	5	C (+97) 96265 19555 BB pelifispercian BB	drivecies/mainga@gmail.com
		Home PI Message	About Project About Institute FAQ Sear	rch Profile Login Analysis		
		les -	Registration	A	4	
		Perso	nal Information			
		First	name Lastname			
		Gen	der	~		
		Des	Ignation V Organization			
		ٹ cho	use your recent password size photo			
		Prev	ious Next			
		About Institute	Our Link	Contact Us		
		is a premier institute of Central India, imparting Pharmaceutical Education in a quality manner to stir out	About Institute	S : pi@spaks.in		
		technically competent Pharmacist and job ready post graduates. Nextled on MR 11 near Rourishing bypass. SCOPE		i cmeeleshmalviyo@gmail.com		
		was tounded in 1999 under the segs of 5 K Rainada Smith Sensthan with an objective "Quality Education Firr All".		f ≇ G+ in		
						10:52 AM
⊥ µ fype here to s	search		👱 🌆 😐 岸 🕴	<u> </u>	~ ~ ~	0 Q+) ENG 11/5/2019

Eile Edit View Higtory Bookmarks Tools Help									- 25	ð	×
SPAICS. × +											
← → C'	stration					60%	⊚	습	1111	•	Ξ
🌣 Most Visited 🧕 Getting Started 🕒 Image result for eid m											1
	Synergizing Pharma Acar Synergizing Pharma Acar	ademic - Industry Collabor	ation Systems				+91) 98263 19555	🖀 pi@spaics.in 🔳 dmeele	shmaliriya@gm	ei.com	Î
	Home Pi Message	About Project About Institute	: FAQ Search Profile	Login Analysis		_					
	2	Registra	tion		-						I
	Cont	tact Information									
	Cor	ontact Number									
	Adde	Idress									
				.a.							
	Clb	ty	Zip Code								
	Se	elect State	Select Country	~							
	Thereby best of	by declare that the details furnished at if my knowledge and belief.	ove are true and correct to the								
	Pre	evious Register									
											_
	About Institute	Our Link		ontact Us							
	Smriti College of Phermaceutical Education, Indore (SCOPE) is a premier institute of Central India, imparting	Home									
	Pharmacautical Education in a quality manner to stir out	About Project		i : pi@spaics.in							~
$\square$ Type here to search	0 # 🤤 🧮 🗳	🔌 🧟 🕯						^ 🌰 🖬 ቀነ	ENG 11	0.53 AM 1/5/2019	14

#### User Login Page



## > User Add Profile Page

<u>File Edit View History Bookm</u>	arks <u>T</u> ools <u>H</u> elp × +					- 6 ×
(←) → ♂ @	(i) 🗝 🔏 spaics.in/add-pro	ofile			50% … 🛛 ☆	± ⊪\ © ⊜ ≡
🌣 Most Visited 🧕 Getting Star	ted G Image result for eid m					
		SPAICS Synergizing Pharm	a Academic - Industry Collaboration	Systems		ŕ
		PiMes	nage About Project About Institute Fai	Q Search Profile My Profile		
			Your Profile			
		Personal Information	P	ART4: PERSONAL INFORMATION		
		Academic Details Professional Details	Title (Prof. Dr. Mr. Ma.);	Select Title	×	
		View PopPLe	Nerre	Norm		
		sageut	Highest Qualification	Select Qualification	>	
			Specialization	Select Specialization	×	
			Designation	Select Designation	w.	
			Organization			
			Corresponding Address			
			Smail Address			
			Mobile Number			
				Sack Next		
E O Type here to sear	rch 🔱 📕	2 🖬 💴 🔞	😪 🔒 👺	o 📕 🖾	يم <sup>م</sup> ع	・ IED (小))ENG 5:26 PM 9/13/2019 - 122

Management of the second s					
<u>File Edit View History Bookmarks Tools H</u> elp					
SPALCS. X T (←) → C û ① =0 % spaics.in/academic_det ☆ Most Visited	ail			(50%) 🛛 🏠	¥ m/ © ⊛ ≡
	SPAICS Synergizing Pharma Acad	demic - Industry Colla	aboration Systems	🔍 (edit) 58265 19355	<ul> <li>Personal information added successfully</li> </ul>
	Pi Message	About Project. About Insti	itutar 174Q Search Profile My Profile		
		Your F	Profile		
19 A S	-				
	Personal Information		PART 8: ACADEMIC DETAILS		
	Professional Details	eval/habon	speciedaboh		
	View Profile	M.Pharm	800		
		1.Pam	800		
		Other	800		
			Previous		
	About Institute Smith Cristage of Pharmanetics Education, Indexe (SCOM), is a sensite institute of Central India, imparting Pharmanetalia Education is a sublighteneater to all radi methicida (context) Famalia and color mady cost	Our Link Home About Institute About Project	Contact Us L. (+1:9683-1655 B) (p@pscs.in B) (conselected)(p@pscl.com		
	protocology in the second seco				
	Copyright & 2017. ALL Rights Reser		Developed by <b>Fig Software Solution</b>		
E O Type here to search	8 🗖 🖉 🌒 🕯	23 💼 📕		д <sup>р</sup> ^	► (1+) ENG 9/13/2019 22

File Edit View History Bookmarks	s <u>T</u> ools <u>H</u> elp					- 0 ×
SPAICS. X	+					
(←) → ୯ @	🛈 🗝 🔏 spaics.in/academic_deta	il			50% … 🛛 🕁	⊻ ⊪\ ₪ ⊜ ≡
Of Most Visited Of Getting Started	G Image result for eid m				€ (+91) 982653 19	35 🖀 pi@spaics.in 😹 dmeeleshmäiviya@gmail.com
		SPAICS Synergizing Pharma Acade	emic - Industry Collabo	oration Systems		
		R Message 4	bout Project. About Institut	te FAQ Search Profile My Profile		
				-01		
			Your Pr	rorite		
		Personal Information		PART-II: ACADEMIC DETAILS		
		Academic Details	Qua0/fication	Specialization		
		Professional Details	PLD.	305		
		Vew Polls				
		Logout	M.Pharm			
			E Plam	loss		
			Other	1001		
				Previous Next		
		About Institute	Our Link	Contact Us		
		Smith College of Pharmaceutical Education, Indone (ECDIPE) is a premier institute of Cantral India, imparting Pharmaceutical Education is a shadler manager to all road	Home About institute	K.: :+91 94343 19555 ■ :pi@speic.in		
		technically composent Pharmacks and job-wady sout practicates. Nextled on MR 11 near flourishing typess. SCOPE	About Project 78Q	🔳 : dmeeleelmaleiya@gmail.com		
		was founded in 1999 under the angle of B R Nahata Smith Sansthan with an objective "Quality Education for AC".		f ¥r G+ in		
		Copyright © 2017. All Rights Reserve	-	Developed by Pg Software Solution		5-20 DM
➡ O Type here to search		<u>i i i i</u>	23 📫 🐕		r <sup>a</sup> ~	← □ (1)) ENG 9/13/2019 22
<u>File</u> <u>E</u> dit <u>V</u> iew History <u>B</u> ookmarks	s <u>T</u> ools <u>H</u> elp					- 0 ×
SPAICS. X	+					
(←) → ♂ ໖	🛈 🗝 🔏 spaics.in/professional-d	etail			50% … 🛛 🕁	⊻ ш\ © ⊜ ≡
🛱 Most Visited 🧓 Getting Started	G Image result for eid m				s. (+91) 98263 19	ss 🛢 pi@space.in 🗯 denesterbenskip/Econolisee
		SPAICS Synergizing Pharma Acade	emic - Industry Collabo	oration Systems		<ul> <li>Academic information added successfully</li> </ul>





<complex-block></complex-block>	<u>File Edit View History Bookmark</u>	ks <u>T</u> ools <u>H</u> elp				- ø ×
<complex-block></complex-block>	$\overbrace{\leftarrow}^{\text{SPALCS.}} \rightarrow \bigcirc \bigcirc$	() → 🔏 spaics.in/professional-	detail		(50%) ····	∓ ⊪⁄ © ⊛ ≡
<complex-block></complex-block>	Most Visited  Getting Started	G Image result for eid m	Synergizing Pharma Academic - Industry Collabo	ration Systems	👟 (491) 992853 19839	i 💼 pi@spaics.in 💼 dmeetechmailvja@gmail.com
<complex-block></complex-block>			IN Message About Project. About Hellbure	NQ Search Profile ing Profile		_
			Your Pro-	ofile		
			Penoral Information 🖌 A. Professional Experience	*		
<complex-block></complex-block>			Personal Information V Academic Details	na Experience 3000		
<complex-block></complex-block>			Professional Details View Profile	nth Equation in 2000		
<complex-block></complex-block>			About Institute Our Link	Previous Nost		
<complex-block></complex-block>			HOUSE INTERVIEW     Generative Statements     Service Codege of Phenomenotical Education, indexed SECORD     House     House maintain all Central Index, immerine     Menomenotical Education in example     Menomenotical Education in example     Menomenotical Education     Monote Project     Monote Project     Monote Project	L :+41 9025 1925 E :=1(\$ppelc.)n E :=1(\$ppelc.)n		
			graduates. Headed on HD 11 dear Hour share bypass. ESDIFE werk housdes in 1999 anders the areas of 8 Al Norea Samit Earnithen with an objection: "Quality Education for All" Head Tanat	f ¥ G+ in		
<complex-block></complex-block>			Coopergini & 2017. All Replin Reserved.	Developed By Pg Cothese Solution		
<complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block>						
<complex-block><complex-block><complex-block><complex-block><complex-block></complex-block></complex-block></complex-block></complex-block></complex-block>			o 📻 🔹 🚯 🐟 🔒 📕		A &	🛳 📭 (b)) ENG 5-29 PM 🔜
<complex-block><complex-block><complex-block><complex-block></complex-block></complex-block></complex-block></complex-block>						9/13/2019 22
<complex-block><complex-block><complex-block><complex-block><complex-block><complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block>						
	<u>File Edit View History Bookmark</u>	ks <u>T</u> ools <u>H</u> elp				– ø ×
	SPAICS.	< +	d a 2			
	↔ → ↔ the the Most Visited ♥ Most Visited ♥ Getting Started	<ul> <li>g sparcs.in/professional-</li> <li>G Image result for eid m</li> </ul>	reter		30% @ W	Contractuu Roberto Recontraciógyacae
<complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><complex-block><image/><complex-block><image/><image/><image/><image/><image/><image/><image/><image/></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block></complex-block>			Spreighting Pharma Academic Instituting Collaboration - Strategy - Receipting Pharma Academic Instituting Collaborations	no, eurolanda aganda Rie		
Image: state stat			Nexad Horney or A Read Report			
Type here to seach    Image: Constrained and a			Period University of Control C	tr dana sa masa dak wili oʻrka. Mrasor		
<form>         Image: second secon</form>			Varandra - Alderstein und An Lagent	etil and a concretion and a concretion of the		
<form>         Image: state sta</form>			nan menine / synapsis menine Angan kawa B. G. Ganarana di Palgan bia			
Image: state			togan kung 2. ( pana) ya fanang kan kung kan kung	іь. 		
Image: second secon			<ol> <li>A respective building of the second se</li></ol>			
Image: state			Haure in van Haure (1996) - Sterne (1996) Haure (1996) Ha	Shipper desper an Pull & Annow Mik (sale		
Image: State Part of State			E. R. Hannach, Gala Molfa Hannord, Gala Holfa, Accord	all Association and and all		
li l			About Inschutz Initia finger prevandent skalatil, nites (2010) to prevandent af finder (2014) to prevandent af finder (2014) to prevandent af finder (2014)	ContactUs ContactUs ContactUs December December		
Image: Note of the search       Sade Margin         Image: Note of the search			<ul> <li>The Control of Cont</li></ul>	B investinguistics f M G+ In		
[25]	Type here to search	D D Et	Constitution of the second sec		~ <sup>9</sup> k	● ■ (1)) ENG 5:30 PM 9/13/2019 22
[25]						
[25]						
[25]						
[25]						
[25]				1		
			[25	1		

### > Search Profile Page

<u>File Edit View History B</u> ookma	rks <u>T</u> ools <u>H</u> elp			- 0 X
S.P.A.I.C.S.	× +			
(←) → ♂ @	🛛 🔏 spaics.in/searc	-profile	■ 60% … ▽ ☆	II\ © ● =
🗘 Most Visited 🧕 Getting Starte	d G Image result for eid m			
		and the second	∿ (+91) 96263 19555 🗰 pi	i@spaics.in 🔳 dmeeleshmalviya@gmail.com
		SPAICS A pair internative mit withing		
		Home PI Message About Project. About Institute FAQ Search	h Profile Login Analysis	
		Search Profile	AL	
		Total Profile Registered : 2408		
		Search by		
		Please Select	×	
		Advance Search		
		Search		
			Search	
		Search View		
		S. Profile Name of Designation Organization Area of Internet Inter	arested in academic- bustry collaboration industry collaboration Action	
		About Institute Since Cargo M Ammanuta Education, Native SCOPE, Is a prime month of Carcel Inde, Imanity, How and Inder Ammanus Addit Addit and Inder Amage and About Project. About Proje	Contact Us t. 1-91 92821 9555 ■ polyapes.n. ■ :denetechnologi@gnal.com f ¥ G+ in	
E $  ho$ Type here to sear	ch	o H 😋 🥅 🗳 🐋 🔒 🤇		^

### Analysis



#### 2.1.1 Basic features

- 1. User friendly
- 2. User login registration
- 3. User login
- 4. Add profile
- 5. Search profile
- 6. View profile
- 7. Download profile

#### 2.1.2 New user registration- Registration form

- Login information
  - o Email Id
  - Password
- Personal information
  - o First Name
  - o Last Name
  - $\circ$  Gender
  - $\circ$  Designation
  - $\circ$  Organization
  - Photo uploading
- Contact information
  - $\circ \quad \text{Contact number} \quad$
  - o Address

- City
- $\circ$  Zip code
- Select state
- Select country
- o Register

### 2.1.3 Registered user-login

- User login details
  - Email Id
  - Password
- User Profile
  - o User photo
  - My profile
    - First Name
    - Last Name
    - Gender
    - Designation
    - Organization
    - Contact number
    - Address
    - City
    - Zip code
    - State

- Country
- Account setting
  - Change password
  - Update profile
- View profile
- 2.1.4 Registered user- add profile
  - Personal information
    - Title (Drop down-Prof., Dr., Mr., Mrs.)
    - Name
    - Highest Qualification (Drop down-Ph.D., M. Pharm., B. Pharm. others)
    - Specialization
    - Designation
    - Organization
    - Corresponding address
    - Email address
    - Mobile number
    - Save
  - Academic details

Qualification	Specialization
Ph.D.	
M. Pharm.	
B. Pharm.	

Others	
■ Save	
Professional detail	
Interested in Academic-Indust	y Engaged in Academic-Industry
Collaborative work	Collaborative work
Yes No	Yes No
 Please tick marl	vour answer

### A. Professional Experience

0

Total Teaching Experience	
Total Industrial Experience	
Total Research Experience	

### **B.** Research Exposure

- **B.1:** Research Interest
- B.2: Academic research projects supervised
- B.3: Academic-industry collaborative projects handled
- **B.4:** Government projects handles
- **B.5:** Details of Patent
- **B.6: Research Publications**
- B.7: Major research areas on which you want to collaborate with

industries

#### 2.1.5 Search profile

- $\circ$   $\,$  Search by  $\,$ 
  - Organization
  - Area of specialization
  - Area of expertise
  - Professional experience
  - Qualification
- Advance search
  - Type search keywords

Search View						
S.	Name of	Designation	Organization	Area of	Area of	Action
No.	Academicians			Specialization	Expertise	
						Download

#### 2.1.6 Analysis

• Participants participation analysis

#### 2.1.7 Who can use the website?

- Universities, Pharmacy institutions and research centers
- Research scholars and students
- Industry professional
- Academicians of Pharmacy institutions

#### 2.1.8 Data bank details

The website compiled profiles of pharmacy academicians including individual personal

information, academic details and professional details

- User photo
- $\circ$  User profile
  - User personal information
    - > Use title
    - First Name
    - Last Name
    - > Gender
    - > Designation
    - > Organization
    - > Contact number
    - > Address
    - > City
    - > Zip code
    - > State
    - > Country
  - User academic details
    - Highest qualification
    - Specialization

- User professional details
  - > Interested/ Engaged in Academic-Industry Collaborative work
  - > Professional Experience
    - ✓ Total Teaching Experience
    - ✓ Total Industrial Experience
    - ✓ Total Research Experience
  - Research Exposure

#### Research Interest

- ✓ Academic research projects supervised
- ✓ Academic-industry collaborative projects handled
- ✓ Government projects handles
- ✓ Details of Patent
- ✓ Research Publications
- ✓ Major research areas on which you want to
  - collaborate with industries
- Account setting
  - Change password
  - Update profile
- View profile

## 2.2 How to use the website?

## 2.2.1 How to register online?

Step 1:	Click on "Login" on top menu bar of website
Step 2:	Provide login credential User name and Password
Step 3:	Click on login button
Step 4:	User profile will display on screen

### 2.2.2 How to login?

Step 1:	Click on "For New User" in Participant login on bottom section of website
Step 2:	Provide login information User name and Password
Step 3:	Provide personal information- first name, last name, gender, select designation, organization and upload scan copy of passport size photo
Step 4:	Provide contact information- contact number, address, city, select state, select country
Step 5:	Submit registration by clicking on "Register"

## 2.2.3 How to add profile?

Step 1:	Click on "add profile" on top menu bar of website
Step 2:	Provide personal information followed by save and click on "Next"
Step 3:	Provide academic details followed by save and click on "Next"
Step 4:	Provide professional details followed by save and click on "Next"
Step 5:	Click on "Submit" to submit the profile

## 2.2.4 How to search profile?

Step 1:	Click on "search profile" on top menu bar of website
Step 2:	Select search profile by selecting drop down search options Organization, Area of
	specialization, Area of expertise, Professional experience, Qualification
Step 3:	In advance search type keywords word to specify your search
Step 4:	Click on "search", Search view table will display that consist of various column of
	registered profiles S. No., Name of Academicians, Designation, Organization, Area
	of Specialization, Area of Expertise, Action
Step 5:	To download the pdf file of individual profile Click on "Download" in search view
	table

## Chapter 3: Pharmacy institution in India- An analysis

## 3.1 Pharmacy institutions in India- State wise distribution

STATE	PHARMACY INSTITUTIONS IN INDIA
	(STATE WISE DISTRIBUTION)
ANDRA PRADESH	125
ASSAM	06
BIHAR	11
CHANDIGARH	01
CHATTISGARH	19
DELHI	04
GOA	08
GUJRAT	67
HARYANA	57
HIMANCHAL PRADESH	19
J&K	01
JHARKHAND	02
KARNATAKA	80
KERALA	55
MADHYA PRADESH	132
MAHARASTRA	289
MIZORAM	01

ODISHA	17
PUNJAB	47
RAJASTHAN	38
SIKKIM	02
TAMIL NADU	72
TELANGANA	127
TRIPURA	01
UTTAR PRADESH	324
UTTARAKHAND	22
WEST BENGAL	23
TOTAL PHARMACY INSTITUIONS	1550



## Chapter 4: Pharmacy academicians profile- An analysis

4.1 Percentage of pharma academicians registered (Title wise distribution)

Total pharmacy academicians participated 2401 considered as 100% for further distribution

TITLE	PERCENTAGE OF PHARMA ACADEMICIANS
	REGISTERED
Prof.	12 %
Dr.	16 %
Mrs.	21 %
Mr.	42 %
Ms.	9 %



4.2 Percentage of pharma academicians registered (Highest qualification wise distribution)

Total pharmacy academicians participated 2401 considered as 100% for further distribution

HIGHEST QUALIFICATION	PERCENTAGE OF PHARMA ACADEMICIANS
	REGISTERED
Ph.D.	12 %
M. Pharm.	82 %
B. Pharm.	6 %



4.3 Percentage of pharma academicians registered (Specialization wise distribution)

Total pharmacy academicians participated 2401 considered as 100% for further distribution

SPECIALIZATION	PERCENTAGE OF PHARMA ACADEMICIANS REGISTERED
Pharmaceutical Chemistry	34 %
Pharmaceutics	38 %
Pharmacology	12 %
Pharmacognosy	16 %



4.4 Percentage of pharma academicians registered (Interested in academic-industry collaborative work wise distribution)

INTERESTED IN ACADEMIC-INDUSTRY COLLABORATIVE WORK	
Yes	100 %
No	0 %



4.5 Percentage of pharma academicians registered (Engaged in academic-industry collaborative work wise distribution)

ENGAGED IN ACADEMIC-INDUSTRY COLLABORATIVE WORK	
Yes	8 %
No	92 %



4.6 Percentage of pharma academicians registered (Total teaching experience wise distribution in years)

TOTAL TEACHING EXPERIENCE	
Above 15	9 %
10-14	22 %
5-9	38 %
Below 5	31 %



4.7 Percentage of pharma academicians registered (Total industry experience wise distribution in years)

TOTAL INDUSTRY EXPERIENCE	
Above 10	1%
5-9	7 %
1-5	39 %
Below 1	53 %



4.8 Percentage of pharma academicians registered (Total research experience wise distribution in years)

TOTAL RESEARCH EXPERIENCE		
Above 10	32 %	
5-9	25 %	
1-5	31 %	
Below 1	12 %	



4.9 Percentage of pharma academicians registered (Area of research interest wise distribution)

Total pharmacy academicians participated 2401 considered as 100% for further distribution representation

AREA OF RESEARCH INTEREST	PERCENTAGE OF PHARMA ACADEMICIANS
	REGISTERED
ANALYTICAL METHOD DEVELOPMENT	6 %
BIOEQUIVALENCE STUDIES	5 %
BIOMEDICAL DEVICE DEVELOPMENT	1 %
BIOPHARMACEUTICS AND PHARMACOKINETICS	5 %
CHEMO INFORMATICS	1 %
CLINICAL PHARMACY	3 %
CLINICAL STUDIES	2 %
CONTROLLED DRUG DELIVERY	6 %
DRUG DISCOVERY AND DEVELOPMENT	1 %
EXTRACTION AND ISOLATION	6 %
FORMULATION DEVELOPMENT	6 %
HERBAL DRUGS STANDARDIZATION	4 %
HERBAL FORMULATIONS DEVELOPMENT	4 %
IMPURITY PROFILING	1 %
INTELLECTUAL PROPERTY RIGHTS	1 %
IPQC, QC AND QA	1 %

[47]

MARKETING RESEARCH	0 %
NANOBIOTECHNOLOGY	1 %
NANOTECHNOLOGY	6 %
NUTRACEUTICALS AND COSMECEUTICALS	3 %
ORGANIC HETEROCYCLIC SYNTHESIS	1 %
PHARMACOLOGICAL MODEL DEVELOPMENT	1 %
PHARMACOVIGILANCE	2 %
PHYTOPHARMACEUTICALS	2 %
PRECLINICAL INVESTIGATIONS	1 %
PRODRUG	1 %
QSAR STUDIES	2 %
QUALITY ASSURANCE	2 %
REGULATORY AFFAIRS	1 %
SOLUBILITY ENHANCEMENT	5 %
STABILITY STUDIES	2 %
SYNTHESIS AND BIOLOGICAL EVALUATION	4 %
TISSUE CULTURE	1 %
TOXICOLOGICAL STUDIES	1 %
TRAINING AND PLACEMENT	1 %
TRANSDERMAL DRUG DELIVERY	4 %
VALIDATION	1 %
PHARMACOGENETICS	1 %
[48]	1

PACKAGING TECHNOLOGY	0 %
BIOCHEMISTRY	1 %
STERILIZATION AND MICROBIOLOGICAL ASSAY	1 %
SOP WRITING	1 %
NDA APPLICATION	0 %
BIOTECHNOLOGY	1 %



4.10 Percentage of pharma academicians registered (Academic research projects supervised wise distribution)

PERCENTAGE OF ACADEMIC RESEARCH PROJECTS		
SUPERVISED		
Above 50	11 %	
41-49	14 %	
31-40	15 %	
21-30	10 %	
11-20	26 %	
Below 11	24 %	



4.11 Percentage of pharma academicians registered (Academic-industry collaborative projects handled wise distribution)

Total pharmacy academicians participated 2401 considered as 100% for further distribution representation

PERCENTAGE OF ACADEMIC-INDUSTRY COLLABORATIVE		
PROJECTS HANDLED		
Above 7	3 %	
6	2 %	
5	1 %	
4	3 %	
3	3 %	
Below 2	88 %	



[52]

4.12 Percentage of pharma academicians registered (Government research projects handled

wise distribution)

Total pharmacy academicians participated 2401 considered as 100% for further distribution representation

PERCENTAGE OF GOVERNMENT RESEARCH PROJECTS		
HANDLED		
Above 7	3 %	
6	2 %	
5	1 %	
4	3 %	
3	4 %	
Below 2	87 %	



[53]

4.13 Percentage of pharma academicians registered (Details of patents published wise distribution)

DETAILS OF PATENTS PU	JBLISHED
Above 7	2 %
6	2 %
5	1 %
4	3 %
3	4 %
Below 2	88 %



4.14 Percentage of pharma academicians registered (Details of research publications wise distribution)

DETAILS OF RESEARCH PUBLICA	TIONS
Above 50	48 %
41-49	8 %
31-40	11 %
21-30	8 %
11-20	7 %
Below 11	18 %



4.15 Percentage of major research areas on which you want to collaborate with industries

(Research area wise distribution)

Total pharmacy academicians participated 2401 considered as 100% for further distribution

MAJOR RESEARCH AREAS ON WHICH YOU WANT T	0
COLLABORATE WITH INDUSTRIES	
ANALYTICAL METHOD DEVELOPMENT	6 %
BIOEQUIVALENCE STUDIES	5 %
BIOMEDICAL DEVICE DEVELOPMENT	1 %
BIOPHARMACEUTICS AND PHARMACOKINETICS	5 %
CHEMO INFORMATICS	1%
CLINICAL PHARMACY	3 %
CLINICAL STUDIES	2 %
CONTROLLED DRUG DELIVERY	6 %
DRUG DISCOVERY AND DEVELOPMENT	1 %
EXTRACTION AND ISOLATION	6 %
FORMULATION DEVELOPMENT	6 %
HERBAL DRUGS STANDARDIZATION	4 %
HERBAL FORMULATIONS DEVELOPMENT	4 %
IMPURITY PROFILING	1 %
INTELLECTUAL PROPERTY RIGHTS	1%
IPQC, QC AND QA	1 %

MARKETING RESEARCH	0 %
NANOBIOTECHNOLOGY	1 %
NANOTECHNOLOGY	6 %
NUTRACEUTICALS AND COSMECEUTICALS	3 %
ORGANIC HETEROCYCLIC SYNTHESIS	1 %
PHARMACOLOGICAL MODEL DEVELOPMENT	1 %
PHARMACOVIGILANCE	2 %
PHYTOPHARMACEUTICALS	2 %
PRECLINICAL INVESTIGATIONS	1 %
PRODRUG	1 %
QSAR STUDIES	2 %
QUALITY ASSURANCE	2 %
REGULATORY AFFAIRS	1 %
SOLUBILITY ENHANCEMENT	5 %
STABILITY STUDIES	2 %
SYNTHESIS AND BIOLOGICAL EVALUATION	4 %
TISSUE CULTURE	1 %
TOXICOLOGICAL STUDIES	1 %
TRAINING AND PLACEMENT	1 %
TRANSDERMAL DRUG DELIVERY	4 %
VALIDATION	1 %
PHARMACOGENETICS	1 %
[57]	

PACKAGING TECHNOLOGY	0 %
BIOCHEMISTRY	1%
STERILIZATION AND MICROBIOLOGICAL ASSAY	1%
SOP WRITING	1%
NDA APPLICATION	0 %
BIOTECHNOLOGY	1 %



## **Chapter 5: Administration & Maintenance of the Website**

#### 6.1 Administration of the Website

Prepared web portal <u>www.spaics.in</u> is continuously working and timely checked for proper functioning of each and every feature. New registration, addition of new profile and updation in the existing registered profile will be an ongoing activity. The website hosted on a server of a shared service provider.

#### 6.1 Maintenance of the Website

The website hosted on a server of a shared service provider. Maintenance of the website includes the domain re-registration, removing of unnecessary information, checking of duplicity, verification of new users and regular back up of the website and data.

## **Chapter 6: Recommendations**

Compilation of profiles of Pharma academicians interested/engaged in academic-industry collaborations is a unique exercise. Currently, certain pharmacy institutions have academicians that actively pursue links with industry, but they lack the interactions amongst themselves and with industries. Prepared database is an innovative initiative to compile the profile of pharma academicians those who are interested/engaged in academic-industry collaborations at one platform. This compilation is being considered as first attempt and did not get the requisite response from the pharma academicians approached through their institutions from entire country.

A platform of the desired database is developed by the investigators. Prepared compiled database strongly recommended that pharma academicians and pharma industry should synergies the collaborative initiatives to facilitate the research exposure at institute level followed by scale up at industry level. To achieve maximum outcome of academic research translation into industrial oriented research prepared database will act as catalyst.

The pharma academician's profiles have now been compiled and available as online database including their research exposure and expertise. Participated pharma academician's profile and new registration addition of profile require regular updation, therefore LPAC has recommended that the website should be maintained and updated on a continuing basis.

The prepared website may also be improved depending on the feedback and continuous interaction with pharma academicians and industrial professional according to the everchanging requirements of pharma research and innovations.

## Annexure

#### **Annexure I: Project information brochure**





## PRINCIPAL INVESTIGATOR'S MESSAGE

ACADEMIA-INDUSTRY COLLABORATION is a persistent matter of debate for both academia and industries. A high-quality academic research can assist industry to produce economical product for the society.

In recent years, it's apparent and obvious that there is a great need of sharing knowledge between research institutions and industries. Current Pharma Market urgently requires collaboration of both the parties. Such collaborations will translate research ideas into industrial products; in addition institutes will be more reachable and permissible by the industries.

Currently, certain research institutions have faculty fraternities that actively pursue links with industries, but they lack the interactions amongst themselves and with industries. Though academicians in best institutes engaged in research, but on higher end maximum of their research is limited to publications or patentability, very few are transformed into marketed or commercialised products. Therefore, need is alignment of academician's research towards demand of industry so as to generate more revenue and furthermore reduce the time as well as the research expenditure.

To accomplish this objective our research team is developing a database of academicians that can be utilised by pharma industries. The created database comprises of academician's details along with their research expertise. The significant database will be useful to foster the academia-industry collaboration, helpful to prove the potential of academicians as innovative researchers to fulfill the requirements of pharma industries.

Indeed, I request you to participate in this sincere and generous collaboration to create effective and relevant database, by providing details about your expertise comprising personnel, academic and professional aspects. I assure you that this collaboration will be helpful to achieve great collective goals for growth of pharma profession.

If you have any queries; please feel free to contact.

Thank you for your time and support.

Dr. Neelesh Malviya Principal Investigator

# **ABOUT THE PROJECT**

#### (A PROJECT SPONSORED BY DST-NSTMIS)

Today, industries are trying to track down innovative solutions from the academia to assist them in an efficient manner with higher productivity and lower costs. A pragmatic way to bridge the gap is that industries should approach academicians to spend time at their facility to solve their problems and issues. This development is not possible without the database comprising of profile of academicians interested or engaged especially in industrial oriented research work.

In India, present-day necessity is to fall in line and bridge the gap between academics and industries. Compilations of profiles of academicians interested/engaged in research will absolutely stimulate association between both of them. In context of present and future research studies in India; created database of profiles will play a marked role to boost above collaborations from the grass root level. Certainly by database industries can recognise and appreciate the potential of academicians. Furthermore can shortlist them in accordance with requirements, by having a flash towards their profile and eventually can contact them easily.

#### **OBJECTIVE OF THE PROJECT**

The interactions between the pharmaceutical academics and industries can vary from contractual research to collaborative research or even to structured partnerships. Hence, to convert these interactions into legal collaborations appropriate connection or regular linking between both is necessitated. With this objective present project is sketched to collect, compile and create database of profiles of Pharmacy Profession Academicians interested/engaged in academic-industrial collaborations. The frame of database will definitely revitalise them to share their interest and potential among industrialists.

### **EXPECTED BENEFITS**

- Prepared Database of Pharmacy Profession Academicians will facilitate to promote and employ their research skills as per the demand
- Contact information in database of Pharmacy Profession

## **PROJECT TEAM**

#### Dr. Neelesh Malviya

Principal Investigator, DST-NSTMIS Project

Professor, Smriti College of Pharmaceutical Education, Indore

Academicians can be supportive to associate and contact them easily for collaborations and research

 Over and above created database will assist to select right Pharmacy Academicians for right research work

#### Mr. Ankit Mangal

Research Assistant

Mr. Nikkkee Chhattan Research Consultant

#### WHO ARE ELIGIBLE TO PARTICIPATE?

Academicians of Pharmacy Profession are eligible to participate.

#### **HOW TO PARTICIPATE?**

- TO PARTICIPATE IN THE PROJECT
- 1. Interested aspirants/participants can register on www.spaics.com and fill the online PARTICIPANT PROFILE FORM.
- Participants can also download the online PARTICIPANT PROFILE FORM from the above website and submit a scanned copy offline via email to the below mentioned id.

#### CORRESPONDING ADDRESS

Dr. Neelesh Malviya, Principal Investigator, Smriti College of Pharmaceutical Education, Indore 4/1 Pipliya Kumar Kakkad, Mayakhedi Road, MR-11, Dewas Naka, Indore-452010 (M.P.) E: pi@spaics.in + drneeleshmalviya@gmail.com + M: +91 98263 19555 + W: www.spaics.in

#### **PARTICIPATION FEES** Participation is completely free

#### AGREEMENT OF CONFIDENTIALITY

Participant information inclusive of name, designation, organisation, research expertise, research exposure and area of interest to collaborate will be available exclusively on our website.

## CERTIFICATE OF RECOGNITION & APPRECIATION

After successful incorporation of profile a Certificate of Recognition & Appreciation will be provided to all aspirants.

# **ABOUT INSTITUTE**

Smriti College of Pharmaceutical Education, Indore (SCOPE) is a premier institute of Central India, imparting Pharmaceutical Education in a quality manner to stir out technically competent Pharmacist and job-ready post graduates. Nestled on MR-11 near flourishing bypass, SCOPE was founded in 1999 under the aegis of BR Nahata Smriti Sansthan with an objective "Quality Education for All". Carving a niche in Pharmaceutical Education, we are at the forefront of research ever since BRNSS group launched the first private organisation who has started UG and PG courses in the Madhya Pradesh.

SCOPE academics have been benchmarked against the best prevailing standards with regular up gradation. It is our belief that value based learning, leading to total personality development and expertise of student and the faculties will be long lasting contribution to the overall growth & development of our nation and society. Our contribution has been phenomenal in innovations, publications, presentations by faculty members and research from budding pharmacists and scholars. We advocate skill based education rather than rote learning for syllabus driven and exam oriented approach.

We are the only institute running exclusively pharmacy course, both UG and PG level in Madhya Pradesh. Our courses are approved by AICTE & PCI and affiliated to RGPV. We are the only institute accredited by NBA in the year 2013 and have also secured Platinum rank in AICTE CII survey in Indore region.





Smriti College of Pharmaceutical Education Indore Formulating Confidence for Success AICTE & PCI Approved | Affiliated to RGTU, Bhopal

4/1 Pipliya Kumar Kakkad, Mayakhedi Road, MR-11, Dewas Naka, Indore-452010 (M.P.) | T: 0731-6952457 E: principal@scopeindore.info | W: www.meu.edu.in/scope **Annexure II: Project information brochure** 



Principal Investigator, DST-NSTMIS Project Professor, Smriti College of Pharmaceutical Education, Indore E: pi@spaics.in | drneeleshmalviya@gmail.com M: +91 98263 19555 | W: www.spaics.in

Research Centre Smriti College of Pharmaceutical Education, Indore

# **PARTICIPANT PROFILE FORM**

# (RESPONDENTS: ACADEMICIANS OF PHARMACEUTICAL SCIENCE FIELD)

#### Dear Respondents

This Participant Profile Form is a part of a project entitled "Compilation of profiles of Pharma Academicians Interested/Engaged in Academic-Industry Collaborations" sponsored by DST-NSTMIS being conducted by the Research Team of Smriti College of Pharmaceutical Education, Indore.

OBJECTIVE OF THE PROJECT: The interactions between the pharmaceutical academics and industries can vary from contractual research to collaborative research or even to structured partnerships. Hence, to convert these interactions into legal collaborations appropriate connection or regular linking between both is necessitated. With this objective present project is sketched to collect, compile and create database of profiles of Pharmacy Profession Academicians interested/ engaged in academic-industrial collaborations. The frame of database will definitely revitalise them to share their interest and potential among industrialists.

PARTICIPATION FEES: Participation is completely free.

AGREEMENT OF CONFIDENTIALITY: Participant information's inclusive of name, designation, organization, research expertise, research exposure and area of interest to collaborate will be available exclusively on our website.

CERTIFICATE OF RECOGNITION & APPRECIATION: After successful incorporation of profile a Certificate of Recognition & Appreciation will be provided to all aspirants.

The purpose of this form is to collect the information of respondents related to Personal Information, Qualification, Research Interest and Research Experience.

Title (Prof./Dr./Mr./Ms.)	
Name	
Date of Birth	
Highest Qualification	
Specialization	
Designation	
Organization	
Research Expertise	
Corresponding Address	
Email Address	
Mobile No.	

#### **PART-I: PERSONAL INFORMATION**

Qualification	Specialization
Ph.D.	
M. Pharm	
B. Pharm	
Other	
	PART-III : PROFESSIONAL DETAILS
Intere: Industry	sted in AcademicEngaged in AcademicCollaborative workIndustry Collaborative work
es	No     Yes     No       Please tick mark (√) your answer
A. Profe	essional Experience
Total Teach	
Total Indus	trial Experience
Total Peses	arch Experience
B. Resea	arch Exposure
. 1 : Resea	arch Interest
	Research area
. 2 : Acado	emic research projects supervised
. 2 : Acad	emic research projects supervised Project details
. 2 : Acado	emic research projects supervised Project details
. 2 : Acado	emic research projects supervised Project details
. 2 : Acad	emic research projects supervised Project details
. 2 : Acado	emic research projects supervised Project details emic - Industry Collaborative Projects handled
. 2 : Acado	emic research projects supervised Project details emic - Industry Collaborative Projects handled Project details
. 2 : Acado	emic research projects supervised Project details emic - Industry Collaborative Projects handled Project details

## B. 4 : Government Projects handled

**Project details** 

B. 5 : Patents Published

**Project details** 

**B. 6 : Research Publications** 

**Project details** 

B. 7 : Major research areas on which you want to collaborate with industry Research areas



#### We thank you for your time and participation!

Feel free to send us any comments or suggestions you may have on Participant Profile Form.

Corresponding Address Dr. Neelesh Malviya

Principal Investigator, DST - NSTMIS Project Smriti College of Pharmaceutical Education, Indore 4/1 Pipliya Kumar Kakkad, Mayakhedi Road, MR-11, Dewas Naka, Indore-452010 (M.P.) E: pi@spaics.in | drneeleshmalviya@gmail.com M: +91 98263 19555 | W: www.spaics.in