

Ethirmedu, **B.Komarapalayam** – 638-183, Namakkal Dist. Tamilnadu. India Approved by: Pharmacy Council of India, New Delhi & The TamilnaduDr.M.G.R Medical University, Chennai. Website: <a href="www.jkkmmrfpharmacy.edu.in|E-Mail:principal@jkkmmrfpharmacy.edu.in">www.jkkmmrfpharmacy.edu.in</a>|E-Mail:principal@jkkmmrfpharmacy.edu.in

Contact No.: +919789456750, +919943069944, +919943066944

#### DEPARTMENT OF PHARMACEUTICS

ONE DAY WORKSHOP ON PILOT PLANTS SCALEUP TECHNIQUES IN DRUG FORMULATION

VENUE: SEMINAR HALL

Date: 11.10.2019

RESOURCE PERSONS

1.Dr.N.SENTHILKUMAR. M.PHARM, Ph.D.,

PRINCIPAL

JKKMMRF'S ANNAI JKK SAMPOORANIAMMAL
COLLEGE OF PHARMACY,
KOMARAPALAYAM.

2. Dr.S.CHANDRA., M. PHARM, Ph.D.,

PROFESSOR AND HOD,

JKKMMRF'S ANNAI JKK SAMPOORANIAMMAL

COLLEGE OF PHARMACY,

KOMARAPALAYAM.

No. of students enrolled:250

No. of students certified in our institution: 12

No. of students certified: 238

Dr. N. SENTHILKUMAR,

3KK MUNIRAJAH MEDICAL RESEARCH FOUNDATION ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY, ETHIRMEDU, KOMARAPALAYAM - 638 183. NAMAKKAL DISTRICT, TAMILNADU.

Dr. N.SENTHILKUMAR,
PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION
ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY
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ETHIRMEDU, KOMARAPALAYAM - 638 183. NAMAKKAL DISTRICT. TAMILNADU. INDIA.



#### ANNALIKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

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DATE: 10.10.2019

#### CIRCULAR

This is informed to the B. Pharm-I, II, III, IV Students that the following workshop can be conducted by the Department of Pharmaceutics, JKKMMRF'S ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY, KOMARAPALAYAM and it will be commenced as per the schedule:

WORKSHOP NAME	SCHEDUL E	DURATIO N	VENUE	RESOURCE PERSON
PILOT PLANTS SCALEUP TECHNIQUES IN DRUG FORMULATIO N	11.10.2019	3 HOURS	SEMINA R HALL	Dr.N.SENTHILKUMAR Dr.S.CHANDR

All the above-mentioned students must enroll and actively participate in the course without fail.

NOTE: Certificates should be issued to all the students after completion of the course and examination.

Dr. N.SENTHILKUMAR,

PRINCIPAL

JKK MUNIRAJAH MEDICAL RESEARCH FOUNDATION ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY ETHIRMEDU, KOMARAPALAYAM - 638 183. NAMAKKAL DISTRICT, TAMILNADU, INDIA.

Dr. N. & NTHILKUMAR PRINCIPAL.



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#### DEPARTMENT OF PHARMACEUTICS

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VENUE: SEMINAR HALL

Date: 11.10.2019

RESOURCE PERSONS

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Contact No.: +919789456750, +919943069944, +919943066944

DATE: 11.10.2019

#### **DEPARTMENT OF PHARMACEUTICS**

#### **REPORT**

RESOURCE PERSONS

1.Dr.N.SENTHILKUMAR.,M. PHARM, Ph.D.,
PRINCIPAL

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COLLEGE OF PHARMACY,
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#### **Objective:**

ilot plants are small-scale production systems used to practically test and validate a production technology before commercialization. Generally, the primary motivation behind building and operating pilot plants is to understand and explore a new technology. The objectives of the pilot testing are: To evaluate the feasibility, cost, and other attributes. To better utilize time and resources. To find end users' reactions toward the software

#### Learning outcomes:

Learning your scales, if nothing else, builds finger strength and agility. Think of your scales as being a workout for your fingers. As you learn different scale shapes you might not notice it at first, but your hands are becoming stronger and more agile—exactly what is needed to effectively play chords.

Head of the Department

Principal

Dr. N. SENTHILKUMAR, PRINCIPAL.



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REF.NO: JKKM/PHARM/CEU/REQ/2019/001

From

Department of Pharmaceutics, JKKMMRF'S Annai JKK SampooraniAmmal College of Pharmacy. Komarapalayam, Namakkal [Dist] Tamil Nadu, PIN:638183.

To

The Principal, JKKMMRF'S Annai JKK SampooraniAmmal College of Pharmacy. Komarapalayam, Namakkal [Dist] Tamil Nadu, PIN:638183.

Subject: Letter for requesting Permission to Conduct an one day seminar regarding: -

Respected Sir,

We Are writing this letter to request permission to conduct an one day workshop in the **SEMINAR HALL** on **11.10.2019.** We wish to conduct workshop regarding the **PILOT PLANTS SCALEUP TECHNIQUES IN DRUG FORMULATION**. We request you to kindly permit to conduct workshop program as this would be a great opportunity for Students to learn and that would help a great deal to shape the students.

Looking forward to hearing from you.

Thank you,

5.1

Head of the Department

Yours sincerely.

Date: 10.10.2019

Dr. N. SENTHILKUMAR, PRINCIPAL,





# JKKMMRF's-ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY

Komarapalayam, Nammakal Dt-638183
DEPARTMENT OF PHARMACEUTICS

One day workshopon

PILOT PLANTS SCALEUP TECHNIQUES IN DRUG FORMULATION

held on 11.10.2019



**Venue: SEMINAR HALL** 



Dr. N. SENTHILKUMAR, PRINCIPAL,



Ethirmedu, **B.Komarapalayam** – 638 183, Namakkal Dist. Tamilnadu. India Approved by: Pharmacy Council of India, New Delhi & The TamilnaduDr.M.G.R Medical University, Chennai. Website: <a href="www.jkkmmrfpharmacy.edu.in">www.jkkmmrfpharmacy.edu.in</a> E-Mail: <a href="principal@jkkmmrfpharmacy.edu.in">principal@jkkmmrfpharmacy.edu.in</a> Contact No.: +919789456750, +919943066944, +919943066944

#### **SYLLABUS**

DATE	HOURS	WORKSHOP TOPIC	SUB TOPICS	RESOURCE PERSON
11.10.2019	3 HOURS	PILOT PLANTS SCALEUP TECHNIQUES IN DRUG	Pharmaceutical Process Development & Pilot Plants	Dr.N.SENTHILKUMAR
		FORMULATION	Perspectives on Pilot Plants	Dr.S.CHANDRA

**TOTAL HOURS=3 hours** 

Head Of the Department

Condition And College Condition of the College

Dr. N. SENTHILKUMAR, PRINCIPAL.



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#### **DEPARTMENT OF PHARMACEUTICS**

#### ONE DAYWORKSHOP ON PILOT PLANTS SCALEUP TECHNIQUES IN DRUG FORMULATION

BOUT THE WORKSHOP

Pilot plant scale-up techniques involve reproducible manufacture of an experimental formulation on high-speed production equipment, in a cost-effective manner. It is a part of the pharmaceutical industry where the same processes used during Research and Development (R&D) of dosage forms are applied to different output volumes; usually greater than that obtained during R&D.

In every emerging pharmaceutical industry or an already existing one, there is always a need to have an intermediate batch scale representing procedures and simulating that used for commercial manufacturing. This is achieved by determining the ability of formula to withstand batch-scale and process modification.

There is equally a need for equipment evaluation and validation to ensure that the aim of your company which is the mass production of the drug in question is not defeated. For a pilot scale up to be successful a product must be capable of being processed in a large scale often with equipment that only remotely resembles that used in the development laboratory. The idea is that you

- Inderstand what makes these processes similar, identify and eliminate many scale-up problems before investing targe sum of money on a production unit
- Maintain the chemical attributes of the product, its quality and efficacy even though the production processes are modified as a result of sample size increase, and equipment changes.

#### Pilot plant scale-up must include:

- A close examination of the formula to determine its ability to withstand large scale and process modification.
- A review of a range of relevant processing equipment to determine which would be most compatible with the formulation as well as the most economical, simple, and reliable in producing the product.

Dr. N. SENTHIL KUMAR, PRINCIPAL,

- Determination of the availability of raw materials that consistently meet the specifications required to produce the product.
- Determination of the physical space required and the layout of related functions to provide short term and long term efficiency.

• Evaluation, validation, and finalizing of production and process controls.

• Issuing of adequate records and reports to support Good Manufacturing Practices (GMPs) and provide the historical development of the production formulation process, equipment train, and specifications

• Development and validation of meaningful product reprocessing procedures.

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#### DEPARTMENT OF PHARMACEUTICS

ONE DAY WORKSHOP ON PILOT PLANTS SCALEUP TECHNIQUES IN DRUG FORMULATION

VENUE: SEMINAR HALL

Date: 11.10.2019

### RESOURCE PERSONS 1.Dr.N.SENTHILKUMAR. M.PHARM, Ph.D.,

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#### DEPARTMENT OF PHARMACEUTICS

#### STUDENT FEEDBACK FORM

NAME OF STUDENT: COURSE :	REGISTRATION NO : YEAR & SEMESTER:		
SEMINAR TOPIC :	DATE & TIME: -		

- 1. Overall, how satisfied were you with this seminar?
  - Very satisfied
  - Satisfied
  - Neutral
  - Dissatisfied
  - Very dissatisfied
- How clear were the ideas and concepts we presented? 2.
  - Extremely clear
  - Very clear
  - Moderately clear
  - Not very clear
  - Not at all clear
- What percentage of the information was new to you? 3.



Dr. N. SENTHILKUMAR, PRINCIPAL.

		100%			
	(	75%			
		50%			
	0	25%			
	0%				
4.	How	informative did you find	our seminar?		
7.	-440-	Extremely Informative	our semmar.		
		Very Informative			
		Moderately Informative			
	( )	Not very informative			
	100	Not informative at all			
5.		e there any technical issues	s that prevented you fro	om seeing or hear	ing the seminar?
	am.				
	-	Yes			
	C 1	No			
6.	Wou	ld you like to learn more a	about this topic?		
	C ,	Yes			
	C 1				
7.	Rate	the content of the slides/vi	irtual aid?		
	C 1	Extremely clear			
	arting.	Very clear			
	-	Moderately clear			
	~	Not very clear			
	-69-	Not at all clear			
8.		accurate was the session d	lescription?		
	C	Extremely clear			
	C	Very clear			•
	C	Moderately clear			
	C 1	Not very clear	Research Co.		1 8 Cen
	C	Not at all clear	Cal ani Arima Cole 17		Dr. Al SEAWY

9.	How did the session compare to your expectations?
	Excellent
	Good
	Fair
	Poor
C	Not at all clear

- 10. How Would you rate the content of the seminar?

Student Name With Signature



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#### STUDENTS FEEDBACK ANALYSIS

DATE: 11.10.2019

S.NO	QUESTION DESCRIPTION	ANSWERS	MARKS	TOTAL MARKS
		Verysatisfied	5	
		Satisfied	3	
1	Satisfaction	Neutral	2	5
		Dissatisfied	1	
		Very dissatisfied	0	
		Extremely clear	5	
		Very clear	4	
2	Clarity	Moderately clear	2	5
		Not very clear	1	
		Not at all clear	0	
		100%	5	
		75%	4	5
3	Percentage of the information was new	50%	3	
		25%	2	
		0%	1	
		ExtremelyInformative	5	
		Very Informative	3	
4	Informative	Moderately Informative	2/	5
		Not very informative	(1 ()	10



Dr. N. SENTHILKUMAR, PRINCIPAL,

		Not informative at all	0	
_	Tarkaineline	Yes	5	_
5	Technical issues	No	0	5
,	T. 'l- 4- 1	Yes	5	5
6 Like to learn more ab	Like to learn more about this topic	No	0	
		Extremely clear	5	
		Very clear	3	
7	Rate the content of the slides/virtual aid	Moderately clear	2	5
		Not very clear	1	
		Not at all clear	0	
		Extremely clear	5	
		Very clear	3	5
8	Accuracy of the sessions	Moderately clear	2	
		Not very clear	1	
		Not at all clear	0	
		Excellent	5	•
		Good	3	
9	Session expectations	Fair	2	5
		Poor	1	
		Not at all clear	0	
10		1	1	
		2	2	
	Rate the content of the seminar	3	3	5
		4	4	
		5	5	

Total marks = 50

Head Of the Department

Kamarotayan e Co

Principal Dr. N. SENTHILKUMAR, PRINCIPAL,



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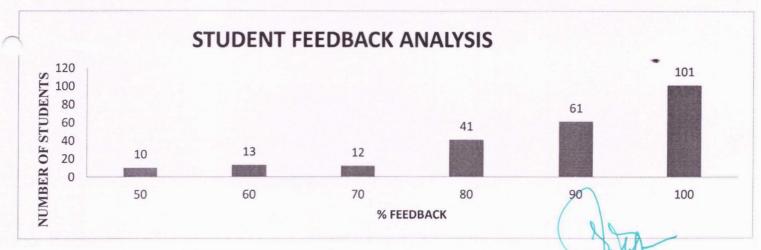
#### REPORT SUMMARY

**DATE: 11.10.2019** 

<b>Duration of the Course</b>	3 HOURS
Total participants Enrolled	250
Successfully Completed	238
Type of Feedback Assessment	Multiple Choice Questions (MCQ's)
Course Outcome	Learning your scales, if nothing else, builds finger strength and agility. Think of your scales as being a workout for your fingers. As you learn different scale shapes you might not notice it at first, but your hands are becoming stronger and more agile—exactly what is needed to effectively play chords

#### Feedback Question Analysis - Question Asked-Feedback Rating

1.Satisfaction	6.Like to learn more about this topic	
2.Clarity	7.Rate the content of the slides/virtual aid	
3. Percentage of the information was new	8. Accuracy of the sessions	
4.Informative	9. Session expectations	
5.Technical issues	10.Rate the content of the seminar	







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#### LIST OF PARTICIPANTS

1	381610418	NIKINS	and the second
2	381610419	RAJARAJARATHINAM	
3	381610420	ROSHNYA	
4	381610421	SABEERBASHAK	II
5	381610422	SATHYANK	in the second of
6	381610423	SHEEBASKOSHY	
7	381610424	SUBHASHINIA	
8	381610425	TAMILSELVANN	
9	381610426	TAMJIDB	
10	381610427	UDHAYAKUMARP	
11	381610428	VELSREEYARAJR	
12	381610429	VISWAS	



Dr. N. SENTHILKUMAR, PRINCIPAL.





JKKMMRF'S ANNAI JKK SAMPOORANI AMMAL
COLLEGE OF PHARMACY

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# Certificate of Appreciation

DEPARTMENT OF PHARMACEUTICS

ONE DAY WORKSHOP

Mr/Ms.....has participate in one day seminar about PILOT PLANTS SCALEUP TECHNIQUES IN DRUG FORMULATION was organized by department of pharmaceutics held on 11 october 2019

July 1

convenor



5.24

co-convenor

Dr. N. SENTHILKUMAR PRINCIPAL

ANNAI JKK SAMPOORANI AMMAL COLLEGE OF PHARMACY, ETHIRMEDU, KOMARAPALAYAM - 638 183. NAMAKKAL DISTRICT, TAMILNADU.





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**COLLEGE OF PHARMACY** 



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JKK MUNIRAJAH MEDICAL RESEARCH

ETHIRMEDU, KOMARAPALAYAM - 638 18

NAMAKKAL DISTRICT, TAMILNADU.

convenor





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convenor

JI

co-convener

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NAMAKKAL DISTRICT, TAMILNADU.