



# SS INSTITUTE OF PHARMACY

(A unit of VS Educational & Charitable Trust)

Approved by Tamilnadu Government & Pharmacy Council of India, New Delhi.  
Affiliated to the Tamilnadu Dr. M.G.R. Medical University,  
and The Directorate of Medical Education, Chennai.

REF.NO:SSIP/ REQ/2019/004

Date: 22/10/2019

**From**

Department of Pharmaceutics,  
SS institute of pharmacy,  
Sankari, Salem (DIST) - 637301.

**To**

The principal,  
SS institute of pharmacy,  
Sankari, Salem (DIST) - 637301.


**Subject:** Letter for requesting permission to conduct **ADD ON COURSE** -Reg.

**Respected sir,**

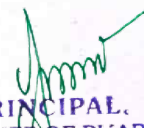
We are requesting you to grant permission to conduct add-on course in the seminar hall on **04/11/2019 to 28/11/2019**. We wish to conduct add on course on the title **"3D Printing In Pharmaceuticals"**. This add-on course program would be a great opportunity for students to learn and that would help to shape the students.

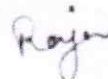
Thanking you,

Yours truly,

  
PRINCIPAL,  
SS INSTITUTE OF PHARMACY,  
KUPPANUR (PO), SANKARI (TK),  
SALEM - 637301



  
PRINCIPAL,  
SS INSTITUTE OF PHARMACY,  
KUPPANUR (PO), SANKARI (TK),  
SALEM - 637301



**NH-544, Kuppanur (Po), Sankari (Tk), Salem(Dt) - 637301, Tamilnadu, India**

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4

DATE: 22/10/2019

## CIRCULAR


This is to inform that will B.PHARM students have the schedule of following value - added course to be conducted by our SS Institute of Pharmacy and it as mentioned below.

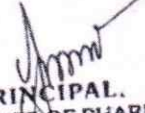
COURSE NAME	SCHEDULE	DURATION	VENUE	RESOURCE PERSON
3D PRINTING IN PHARMACEUTICALS	04/11/2019 to 28/11/2019	36 HOURS	SEMINAR HALL	G.RAJARAM

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

**Note:** Certificates will be issued for the eligible students after completion of the course and examination.



  
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# COURSE TITLE

3D Printing in  
pharmaceuticals

## RESOURCE PERSON

**G.Rajaram M.Pharm**  
Asst. Professor  
SS Institute of Pharmacy

## Topics-

- 1.Design for 3D printed drug formulation
- 2.Application of 3D printing in drug delivery
- 3.Regulatory, quality control, and challenges in 3D printed pharmaceuticals.

## Contact Us

Website  
[www.ssip.edu.in](http://www.ssip.edu.in)  
Email  
[ssipi718@gmail.com](mailto:ssipi718@gmail.com)  
Address  
SS Institute of Pharmacy,  
Sankari, Salem-637 301



**SS INSTITUTE  
OF  
PHARMACY,  
SANKARI**

**DEPARTMENT OF  
PHARMACEUTICS**

PRINCIPAL  
SS INSTITUTE OF PHARMACY  
KUPPANUR (PO), SANKARI (TK),  
SALEM - 637301

**VENUE : SSIP Seminar Hall**

**DATE : 01.07.2019-08.07.2019**

**TIME : 01:30pm-04:30pm**





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## SYLLABUS

### 3D PRINTING IN PHARMACEUTICALS

Sl. No.	Topic	DATE
1	<b>Introduction and Overview of 3D Printing in Pharmaceuticals</b> - Introduction to 3D Printing in Pharmaceuticals - Types of 3D Printing Technologies - Overview of Drug Formulation and 3D Printing	4/11/2019- 7/11/2019
2	<b>Personalized Medicine and Drug Formulation</b> - Personalized Medicine and 3D Printing - Drug Formulation and 3D Printing - Regulatory Considerations for 3D Printed Pharmaceuticals	8/11/2019- 12/11/2019
3	<b>3D Printing in Pharmaceutical Manufacturing</b> - 3D Printing in Pharmaceutical Manufacturing - 3D Printed Medical Devices and Implants	18/11/2019- 20/11/2019
4	<b>Bioprinting and Tissue Engineering</b> - Bioprinting and Tissue Engineering - Applications in Regenerative Medicine	21/11/2019- 23/11/2019
5	<b>Challenges, Limitations, and Future Directions</b> - Challenges and Limitations of 3D Printing in Pharmaceuticals - Future Directions and Opportunities in 3D Printing for Pharma	25/11/2019- 28/11/2019

RESOURCE PERSON: G. Rajaram

TOTAL HOURS: 36Hrs



*[Signature]*  
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## ADD ON / CERTIFICATE VALUE ADDED COURSES ACADEMIC YEAR 2019-2020





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## ACADAMIC YEAR 2019-2020

S.NO	NAME OF ADD ON CERTIFICATES PROGRAMS	COURSE CODE	NO OF STUDENTS ENROLLED	TYPE OF ADD ON CERTIFICATE PROGRAMS
1.	Robotics & automation In drug manufacturing	19RADM01	23	Self-framed course
2.	Environmental Sustainability in Pharmaceutical industry	19ESPI02	11	Self-framed course
3.	Strategic management In the pharmaceutical industry	19SMPI03	12	Self-framed course
4.	3D printing in Pharmaceutical	193DPP04	23	Self-framed course
5.	Pharmaceutical Project management	19PPM05	50	Self-framed course



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## ADD ON COURSE – ENROLLMENT LIST

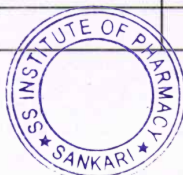
NAME OF ADD ON COURSE : 3D PRINTING IN PHARMACEUTICALS

COURSE INSTRUCTORS : G.RAJARAM

YEAR OFFERED : 3<sup>rd</sup> sem B.Pharm

COURSE DURATION : 36 hrs

S.NO	NAME OF STUDENT	REGISTER NO	COURES
1.	A.ABDUL AZIM	561897201	2 <sup>nd</sup> B.Pharm
2.	K.ARUNKUMAR	561897202	2 <sup>nd</sup> B.Pharm
3.	K.ARUNKUMAR	561897203	2 <sup>nd</sup> B.Pharm
4.	V.CHANDURU	561897204	2 <sup>nd</sup> B.Pharm
5.	L.DHINESHKUMAR	561897205	2 <sup>nd</sup> B.Pharm
6.	S.GANESAN	561897206	2 <sup>nd</sup> B.Pharm
7.	M.GNANAPRAKASH	561897207	2 <sup>nd</sup> B.Pharm
8.	K.GOKULNATH	561897208	2 <sup>nd</sup> B.Pharm
9.	S.GOKUL RAJ	561897209	2 <sup>nd</sup> B.Pharm
10.	P.HARI VISHVA	561897210	2 <sup>nd</sup> B.Pharm
11.	B.JEEVANANTH	561897211	2 <sup>nd</sup> B.Pharm
12.	V.KALAIYARASAN	561897212	2 <sup>nd</sup> B.Pharm
13.	K.KAYALVIZHI	561897213	2 <sup>nd</sup> B.Pharm
14.	P.MANOBALA	561897214	2 <sup>nd</sup> B.Pharm
15.	R.RAJESHKANNAN	561897215	2 <sup>nd</sup> B.Pharm
16.	M.SAKTHIVEL	561897216	2 <sup>nd</sup> B.Pharm
17.	G.SHAFFIULLAH	561897217	2 <sup>nd</sup> B.Pharm
18.	S.SUBASH VARMA	561897218	2 <sup>nd</sup> B.Pharm
19.	J.TAMIL SELVAN	561897219	2 <sup>nd</sup> B.Pharm
20.	N.VASUVI	561897220	2 <sup>nd</sup> B.Pharm
21.	V.VEDHACHALAM	561897221	2 <sup>nd</sup> B.Pharm
22.	M.VIGNESH	561897222	2 <sup>nd</sup> B.Pharm
23.	R.VIJAY	561897223	2 <sup>nd</sup> B.Pharm



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## ADD ON COURSE – ATTENDANCE LIST

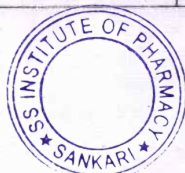
NAME OF ADD ON COURSE : 3D PRINTING IN PHARMACEUTICALS

COURSE INSTRUCTORS : G.RAJARAM

YEAR OFFERED : 3<sup>rd</sup> sem B.Pharm

COURSE DURATION : 36 hrs

S.NO	NAME OF THE STUDENT	REGISTER NO	ATTENDANCE								
			4/11/19	5/11/19	6/11/19	7/11/19	8/11/19	9/11/19	11/11/19	2/11/19	18/11/19
1.	A.ABDUL AZIM	561897201	A.A	A.A	A.A	A.A	A.A	A.A	A.A	A.A	A.A
2.	K.ARUNKUMAR	561897202	A.A	A.A	A.A	A.A	A.A	A.A	A.A	A.A	A.A
3.	K.ARUNKUMAR	561897203	K.A	K.A	K.A	K.A	K.A	K.A	K.A	K.A	K.A
4.	V.CHANDURU	561897204	V.C	V.C	V.C	V.C	V.C	V.C	V.C	V.C	V.C
5.	L.DHINESHKUMAR	561897205	L.D	L.D	L.D	L.D	L.D	L.D	L.D	L.D	L.D
6.	S.GANESAN	561897206	S.G	S.G	S.G	S.G	S.G	S.G	S.G	S.G	S.G
7.	M.GNANAPRAKASH	561897207	M.G	M.G	M.G	M.G	M.G	M.G	M.G	M.G	M.G
8.	K.GOKULNATH	561897208	K.G	K.G	K.G	K.G	K.G	K.G	K.G	K.G	K.G
9.	S.GOKUL RAJ	561897209	S.G	S.G	S.G	S.G	S.G	S.G	S.G	S.G	S.G
10.	P.HARI VISHVA	561897210	P.H	P.H	P.H	P.H	P.H	P.H	P.H	P.H	P.H
11.	B.JEEVANANTH	561897211	B.J	B.J	B.J	B.J	B.J	B.J	B.J	B.J	B.J
12.	V.KALAIYARASAN	561897212	V.K	V.K	V.K	V.K	V.K	V.K	V.K	V.K	V.K
13.	K.KAYALVIZHI	561897213	K.K	K.K	K.K	K.K	K.K	K.K	K.K	K.K	K.K
14.	P.MANOBALA	561897214	P.M	P.M	P.M	P.M	P.M	P.M	P.M	P.M	P.M
15.	R.RAJESHKANNAN	561897215	A	A	A	A	A	A	A	A	A
16.	M.SAKTHIVEL	561897216	M.S	M.S	M.S	M.S	M.S	M.S	M.S	M.S	M.S
17.	G.SHAFFIULLAH	561897217	G.S	G.S	G.S	G.S	G.S	G.S	G.S	G.S	G.S
18.	S.SUBASH VARMA	561897218	S.S	S.S	S.S	S.S	S.S	S.S	S.S	S.S	S.S
19.	J.TAMIL SELVAN	561897219	J.T	J.T	J.T	J.T	J.T	J.T	J.T	J.T	J.T
20.	N.VASUVI	561897220	N.V	N.V	N.V	N.V	N.V	N.V	N.V	N.V	N.V
21.	V.VEDHACHALAM	561897221	V.V	V.V	V.V	V.V	V.V	V.V	V.V	V.V	V.V
22.	M.VIGNESH	561897222	M.V	M.V	M.V	M.V	M.V	M.V	M.V	M.V	M.V
23.	R.VIJAY	561897223	R.V	R.V	R.V	R.V	R.V	R.V	R.V	R.V	R.V



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			19/11/19	20/11/19	21/11/19	22/11/19	23/11/19	25/11/19	26/11/19	27/11/19	28/11/19	
1.	A.ABDUL AZIM	561897201	AA		AA	AA	AA	AA	AA	AA	AA	
2.	K.ARUNKUMAR	561897202	Arun	Arun	Arun	Arun	Arun	Arun	Arun	Arun	Arun	
	K.ARUNKUMAR	561897203	K.Arun	K.Arun	K.Arun	K.Arun	K.Arun	K.Arun	K.Arun	K.Arun	K.Arun	
4.	V.CHANDURU	561897204	Chand	Chand	Chand	Chand	Chand	Chand	Chand	Chand	Chand	
	L.DHINESHKUMAR	561897205	Dhinesh	Dhinesh	Dhinesh	Dhinesh	Dhinesh	Dhinesh	Dhinesh	Dhinesh	Dhinesh	
6.	S.GANESAN	561897206	S.Gan	S.Gan	S.Gan	S.Gan	S.Gan	S.Gan	S.Gan	S.Gan	S.Gan	
7.	M.GNANAPRAKASH	561897207	Gnan	Gnan		Gnan	Gnan	Gnan	Gnan	Gnan	Gnan	
8.	K.GOKULNATH	561897208	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	
9.	S.GOKUL RAJ	561897209	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	Gokul	
10.	P.HARI VISHVA	561897210	P.Hari	P.Hari	P.Hari	P.Hari	P.Hari	P.Hari	P.Hari	P.Hari	P.Hari	
11.	B.JEEVANANTH	561897211	Jeeva	Jeeva	Jeeva	Jeeva	Jeeva	Jeeva	Jeeva	Jeeva	Jeeva	
12.	V.KALAIYARASAN	561897212	V.Kalai	V.Kalai	V.Kalai	V.Kalai	V.Kalai	V.Kalai	V.Kalai	V.Kalai	V.Kalai	
13.	K.KAYALVIZHI	561897213	K.Kayal	K.Kayal	K.Kayal	K.Kayal	K.Kayal	K.Kayal	K.Kayal	K.Kayal	K.Kayal	
14.	P.MANOBALA	561897214	Manu	Manu	Manu	Manu	Manu	Manu	Manu	Manu	Manu	
	R.RAJESHKANNAN	561897215	A	A	A	A	A	A	A	A	A	
16.	M.SAKTHIVEL	561897216	Sakthi	Sakthi	Sakthi	Sakthi	Sakthi	Sakthi	Sakthi	Sakthi	Sakthi	
17.	G.SHAFFIULLAH	561897217	Safi	Safi		Safi	Safi	Safi	Safi	Safi	Safi	
18.	S.SUBASH VARMA	561897218	Subash	Subash	Subash	Subash	Subash	Subash	Subash	Subash	Subash	
19.	J.TAMIL SELVAN	561897219	Tamil	Tamil	Tamil	Tamil	Tamil	Tamil	Tamil	Tamil	Tamil	
20.	N.VASUVI	561897220	Vasu	Vasu	Vasu	Vasu	Vasu	Vasu	Vasu	Vasu	Vasu	
21.	V.VEDHACHALAM	561897221	Vedha	Vedha	Vedha	Vedha	Vedha	Vedha	Vedha	Vedha	Vedha	
22.	M.VIGNESH	561897222	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh	Vignesh	
23.	R.VIJAY	561897223	Vijay	Vijay	Vijay	Vijay	Vijay	Vijay	Vijay	Vijay	Vijay	



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ADD ON COURSE	3D PRINTING IN PHARMACEUTICALS
DEPARTMENT	PHARMACEUTICS
ACADEMIC YEAR	2019 -2020
DATE	04/11/2019 to 28/11/2019
VENUE	SEMINAR HALL
NAME: MANOBALA . P	COURSE: III SEM

ANSWER ALL THE QUESTIONS:

DATE:28/11/2019

MULTIPLE CHOICE QUESTIONS

MARKS:15

- What is the primary advantage of using 3D printing in pharmaceuticals?  
a) Increased speed  
b) Improved accuracy  
☒ c) Enhanced customization  
d) Reduced cost
- Which 3D printing technology is commonly used for pharmaceutical applications?  
a) Fused Deposition Modeling (FDM)  
b) Stereolithography (SLA)  
c) Selective Laser Sintering (SLS)  
☒ d) All of the above
- What is the main benefit of personalized medicine enabled by 3D printing?  
a) Improved efficacy  
☒ b) Reduced side effects  
c) Increased patient compliance  
d) All of the above
- What is the primary regulatory challenge associated with 3D printed pharmaceuticals?  
a) Ensuring quality control  
b) Meeting Good Manufacturing Practice (GMP) standards  
c) Addressing intellectual property concerns  
☒ d) All of the above
- How can 3D printing improve pharmaceutical manufacturing processes?  
a) By increasing automation  
b) By reducing material waste  
c) By enabling just-in-time production  
☒ d) All of the above

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6. What type of medical device can be created using 3D printing?
  - a) Stents
  - b) Surgical models
  - c) Implants
  - ☒ d) All of the above
  
7. What is bioprinting in the context of pharmaceuticals?
  - a) Printing living tissues and organs
  - ☒ b) Creating customized drug formulations
  - c) Developing medical devices
  - d) All of the above
  
8. What is the primary limitation of 3D printing in pharmaceuticals?
  - a) Scalability
  - b) Quality control
  - c) Intellectual property concerns
  - ☒ d) All of the above
  
9. How can 3D printing enable point-of-care manufacturing?
  - a) By reducing production time
  - b) By increasing production flexibility
  - c) By enabling decentralized production
  - ☒ d) All of the above
  
10. What is the potential benefit of using 3D printing for pharmaceutical research and development?
  - a) Improved drug discovery
  - b) Enhanced preclinical testing
  - ☒ c) Increased clinical trial efficiency
  - d) All of the above
  
11. How can 3D printing improve patient outcomes?
  - a) By enabling personalized medicine
  - b) By increasing treatment efficacy
  - c) By reducing side effects
  - ☒ d) All of the above



  
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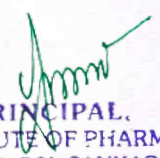
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12. What is the primary material used for 3D printing in pharmaceuticals?
- a) Metals
  - ☒ b) Polymers
  - c) Ceramics
  - d) Biomaterials
13. How can 3D printing reduce pharmaceutical waste?
- a) By enabling just-in-time production
  - b) By reducing material usage
  - c) By creating customized dosages
  - ☒ d) All of the above
14. What is the potential application of 3D printing in pharmaceutical packaging?
- a) Creating customized packaging
  - b) Improving packaging safety
  - c) Reducing packaging waste
  - ☒ d) All of the above
15. How can 3D printing enable the creation of complex drug delivery systems?
- a) By enabling multi-material printing
  - b) By creating customized geometries
  - c) By improving drug release profiles
  - ☒ d) All of the above



  
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and The Directorate of Medical Education, Chennai.

ADD ON COURSE	3D PRINTING IN PHARMACEUTICALS
DEPARTMENT	PHARMACEUTICS
ACADEMIC YEAR	2019 -2020
DATE	04/11/2019 to 28/11/2019

ANSWER KEY:

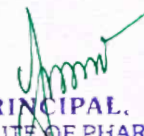
DATE:28/11/2019

MULTIPLE CHOICE QUESTIONS

MARKS:15

- What is the primary advantage of using 3D printing in pharmaceuticals?
  - Increased speed
  - Improved accuracy
  - Enhanced customization**
  - Reduced cost
- Which 3D printing technology is commonly used for pharmaceutical applications?
  - Fused Deposition Modeling (FDM)
  - Stereolithography (SLA)
  - Selective Laser Sintering (SLS)
  - All of the above**
- What is the main benefit of personalized medicine enabled by 3D printing?
  - Improved efficacy
  - Reduced side effects
  - Increased patient compliance
  - All of the above**
- What is the primary regulatory challenge associated with 3D printed pharmaceuticals?
  - Ensuring quality control
  - Meeting Good Manufacturing Practice (GMP) standards
  - Addressing intellectual property concerns
  - All of the above**
- How can 3D printing improve pharmaceutical manufacturing processes?
  - By increasing automation
  - By reducing material waste**
  - By enabling just-in-time production
  - All of the above**



  
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6. What type of medical device can be created using 3D printing?
  - a) Stents
  - b) Surgical models
  - c) Implants
  - d) **All of the above**
  
7. What is bioprinting in the context of pharmaceuticals?
  - a) **Printing living tissues and organs**
  - b) Creating customized drug formulations
  - c) Developing medical devices
  - d) All of the above
  
8. What is the primary limitation of 3D printing in pharmaceuticals?
  - a) Scalability
  - b) Quality control
  - c) Intellectual property concerns
  - d) **All of the above**
  
9. How can 3D printing enable point-of-care manufacturing?
  - a) By reducing production time
  - b) By increasing production flexibility
  - c) By enabling decentralized production
  - d) **All of the above**
  
10. What is the potential benefit of using 3D printing for pharmaceutical research and development?
  - a) Improved drug discovery
  - b) Enhanced preclinical testing
  - c) Increased clinical trial efficiency
  - d) **All of the above**
  
11. How can 3D printing improve patient outcomes?
  - a) By enabling personalized medicine
  - b) By increasing treatment efficacy
  - c) By reducing side effects
  - d) **All of the above**



  
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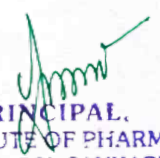
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- 
12. What is the primary material used for 3D printing in pharmaceuticals?
- a) Metals
  - b) Polymers**
  - c) Ceramics
  - d) Biomaterials
13. How can 3D printing reduce pharmaceutical waste?
- a) By enabling just-in-time production
  - b) By reducing material usage
  - c) By creating customized dosages
  - d) All of the above**
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## ADD ON COURSE – MARK LIST

NAME OF ADD ON COURSE : 3D PRINTING IN PHARMACEUTICALS

COURSE INSTRUCTORS : G.RAJARAM

YEAR OFFERED : 3<sup>rd</sup> sem B.Pharm

COURSE DURATION : 36 hrs

S.NO	NAME OF STUDENT	REGISTER NO	MARKS (15)	PERCENTAGE (%)
1.	A.ABDUL AZIM	561897201	15	100%
2.	K.ARUNKUMAR	561897202	14	93%
3.	K.ARUNKUMAR	561897203	13	86%
4.	V.CHANDURU	561897204	12	80%
5.	L.DHINESHKUMAR	561897205	13	86%
6.	S.GANESAN	561897206	14	93%
7.	M.GNANAPRAKASH	561897207	13	86%
8.	K.GOKULNATH	561897208	12	80%
9.	S.GOKUL RAJ	561897209	12	80%
10.	P.HARI VISHVA	561897210	15	100%
11.	B.JEEVANANTH	561897211	13	86%
12.	V.KALAIYARASAN	561897212	13	86%
13.	K.KAYALVIZHI	561897213	15	100%
14.	P.MANOBALA	561897214	13	86%
15.	R.RAJESHKANNAN	561897215	A	A
16.	M.SAKTHIVEL	561897216	14	93%
17.	G.SHAFFIULLAH	561897217	15	100%
18.	S.SUBASH VARMA	561897218	13	86%
19.	J.TAMIL SELVAN	561897219	12	80%
20.	N.VASUVI	561897220	15	100%
21.	V.VEDHACHALAM	561897221	15	100%
22.	M.VIGNESH	561897222	13	86%
23.	R.VIJAY	561897223	13	86%

TOTAL NUMBER OF STUDENT : 22

TOTAL NUMBER OF PERCENTAGE : 94%



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Phone : 04283 241080 | E-mail : ssip1718@gmail.com | Website : www.ssip.edu.in





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## ADD ON COURSE : SUMMARY REPORT

**Course code and Name :** 193DPP04/ 3D Printing In Pharmaceuticals

**Date Of Add On Programme :** 04/11/2019 to 28/11/2019

**Course Duration :** 36 Hours

**Year Offered :** 3<sup>rd</sup> Sem B.Pharm

**Course Instructors :** G.Rajaram.,M.Pharm.

**Course Outcomes :**

- **Technology Understanding:** Gain a comprehensive understanding of 3D printing technologies and their applications in pharmaceutical manufacturing.
- **Design and Development:** Learn to design and develop custom drug delivery systems and medical devices using 3D printing techniques.
- **Regulatory Considerations:** Understand regulatory challenges and guidelines related to 3D-printed pharmaceutical products.

**Course Type :** Add on Course

**Assessment Mode:**

**Total Duration :** 36 Hours

**Number of Participants :** 23

**Scheme of Exam :** MCQ type, offline Mode

**Date of Exam :** 28/11/2019

**Course Coordinator**

*Raja*



*[Signature]*  
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## CERTIFICATE OF PARTICIPATION



ONE DAY WORKSHOP  
Organized by  
Department of  
PHARMACEUTIS

.....K. ARUNKUMAR.....

HAS APPRICATED FOR HIS / HER PARTICIPATION  
IN ONE DAY SEMINAR ON  
3D PRINTING IN PHARMACEUTICALS

.....04/11/2019 TO 28/11/2019.....

*G. Rajan*

COORDINATOR



*[Signature]*  
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*[Signature]*

PRINCIPAL





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ONE DAY WORKSHOP  
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Department of  
PHARMACACEUTIS

.....N. VASAVI.....

HAS APPRICATED FOR HIS / HER PARTICIPATION  
IN ONE DAY SEMINAR ON  
3D PRINTING IN PHARMACEUTICALS

04/11/2019 TO 28/11/2019  
.....

*G. Rajan*

COORDINATOR



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## STUDENT FEEDBACK FORM

STUDENT NAME: Ganesan . S .

DATE: 26.11.2019

YEAR/COURSE: B. Pharm - III<sup>rd</sup> sem .

NAME OF THE ADD ON COURSE: 3D printing in pharmaceuticals


COURSE CODE: 193DPP04

DURATION: 36 hrs .

EVALUATE HONESTLY:

Questions	Excellent	Good	Fair	Poor
How was the objectives of the training	✓			
How satisfied are you with our seminar	✓			
How would you rate the clarity and effectiveness of the presenter's delivery	✓			
Was the seminar duration appropriate			✓	
How engaging and interactive was the seminar		✓		
Usefulness of the information provided		✓		
Overall quality of session	✓			



  
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SIGNATURE





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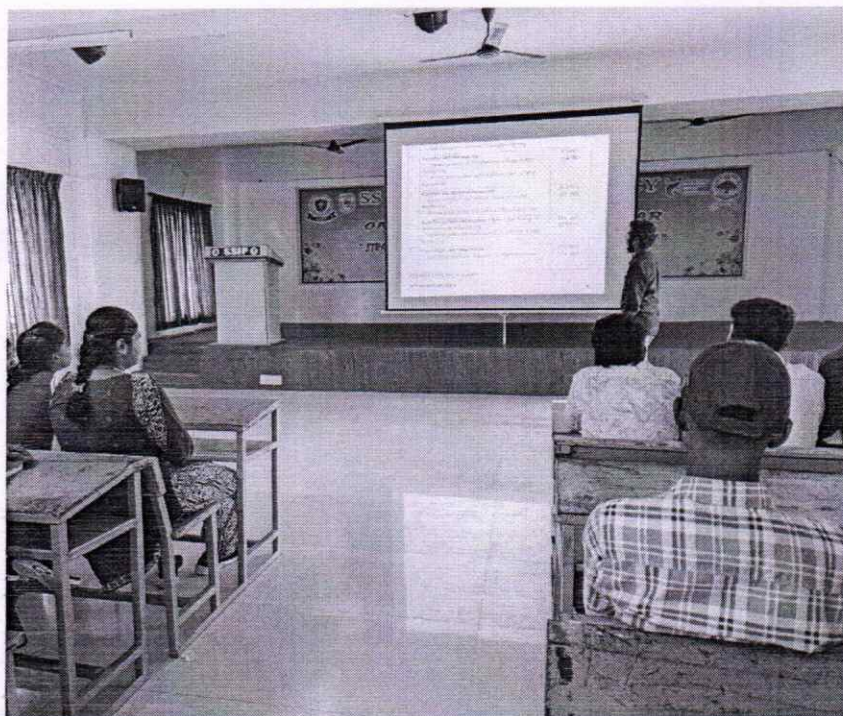
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PHOTOGRAPH

DATE : 06/11/2019

## 3D PRINTING IN PHARMACEUTICALS

NAME OF ADD ON COURSE : 3D PRINTING IN PHARMACEUTICALS  
COURSE INSTRUCTORS : G.RAJARAM  
YEAR OFFERED : 3<sup>rd</sup> SEM B.PHARM  
COURSE DURATION : 36 HRS



Add-on course regarding the Topic Application of 3D Printing In Pharmaceuticals conducted on 06/11/2019 the speech delivered By **G.Rajaram.,M.Pharm**, SSIP which was an interactive session and students could able to understand the Application of 3D Printing In Pharmaceuticals in the fields of pharmaceutical sciences



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