

Equipments under Innovation EcoSystem

A separate instrumentation laboratory named as DST-FIST supported Central research Laboratory was established. Following instruments have been purchased for research purpose.

1. Binary HPLC system MODEL: LC 138(B)

This instrument is used to analyse various chemical components qualitatively and quantitatively. Newly synthesized drugs can be purified using HPLC technique. The presence of steroids, flavanoids, phenolic contents and various other chemicals can be detected in plant extracts.




2. High End GPU Workstation

High end CPU workstation with Xeon processor, liquid cooled model is being used for simulation and computational work and for running research software GNU Scientific Library, Quantum Espresso.



3. Fermentor

Fermentor is used for mass culturing of bacterial and fungal cells for making products useful to humans.


PRINCIPAL
Sri Sathya Sai College
For Women, Bhopal (M.P.)



4. Millipore Water Purification System

It is used to obtain ultra pure water (Type I and Type II) which find use in HPLC instrument, spectrophotometer, pH meter, conductometer, for various synthesis techniques as medium and in sophisticated instrument.



5. Synthesis Microwave

Synthesis Microwave is an important tool for synthesis and extraction of compounds. It is used for green synthesis of organic compounds which is included in our M.Sc. syllabus.



Details of equipments purchased under Research Facility and Teaching Facility by six participating departments of Science are:

S. No.	Name(with Model&Make)	OrderDate	Installationdate	CostinINR
RESEARCH FACILITIES				
1	Binary HPLC Model: LC 138(B)	SSSC/37"B"/444 dated 02.08.16	30-8-16	9,97,500.00
2	Millipore Model: DQ3	SSSC/88/438 dated 26.07.16	24-8-16	6,07,383.00
3	Fermentor (Bioferma)	SSSC/37"B"/507 dated 05.08.16	14.09.16	3,16,692.00
4	GM Counter Setup (GC-602A) for radioactive radiations	SSSC/37"B"/483 dated 03.08.16	25.03.17	53933.00
5	High End GPU Workstation (Xeon Processor, 128 GB RAM, NVIDIA Graphic Card, HDD-2*2000 GB SATA with SSD and Full HD Monitor) Liquid cooled Model	SSSC/37"B"/482 dated 03.08.16	20.12.16	10,23,698.00
Total				Rs 29,99,206

TEACHING FACILITIES

Department of Botany& Microbiology

S. No.	Name(with Model&Make)	OrderDate	Installationdate	CostinINR
1	Trinocular Microscope Olympus cx-41-TR	SSSC/37"B"/473 dated 02.08.16	01.10.16	228880.00
2	Digital Camera attached with microscope (Olympus)	SSSC/37"B"/473 dated 02.08.16	01.10.16	74800.00
3	Mono Quartz Distillation unit assembly with power supply (DAPS) Borosil Cat no. 3363042	SSSC/37"B"/474 dated 02.08.16	14.09.16	45779.00
4	PC based double beam U-V-V Spectrophotometer (including operating software, Laptop & Printer) Systronics. Model no. 2201	SSSC/37"B"/474 dated 02.08.16	16.09.16	430920.00
Total				Rs. 780379.00

Department of Chemistry

S. No.	Name(with Model&Make)	OrderDate	Installationdate	CostinINR
5	Synthesis Microwave Model: Monowave 200	SSSC/37"B"/474 dated 02.08.16	23-3-17	9,16,000.00
6	High Precision water bath Model: SE-135	SSSC/37"B"/1219 dated 03.02.17	09-8-16	38,950.00
7	Digital Melting Point Model: SE-174	SSSC/37"B"/442 dated 27-7-16	09-8-16	53,900.00
8	Vaccum compressor pump Model: SE-173	SSSC/37"B"/442 dated 27-7-16	09-8-16	18,975.00
9	Clevenger Apparatus 1000ml.(Borosil.)	SSSC/37"B"/443 dated 27-7-16	09-8-16	9450.00

				Rs.10,37,275.00
Department of Zoology and Biotechnology				
S. No.	<i>Name(with Model&Make)</i>	<i>OrderDate</i>	<i>Installationdate</i>	<i>CostinINR</i>
10	Horizontal Electrophoresis Unit with Power Supply (HiMedia)	SSSC/37"B"/505 dated 05.08.16	06.08.16	36,900.00
11	Digital Balance (Wenser)	SSSC/37"B"/506 dated 05.08.16	14.09.16	18,876.12
12	Shaker Incubator Heating (BTI)	SSSC/37"B"/508 dated 05.08.16	15.09.16	79,800.00
13	Water Bath (Scientec)	SSSC/37"B"/505 dated 05.08.16	06.08.16	12,500.00
14	Thin Layer Chromatography (Sentwin)	SSSC/37"B"/508 dated 05.08.16	15.09.16	9690.00
15	Paper Chromatography (Laby)	SSSC/37"B"/506 dated 05.08.16	14.09.16	4,332.00
16	Soxhlet Apparatus (BTI)	SSSC/37"B"/508 dated 05.08.16	15.09.16	7182.00
17	Refrigerated Microcentrifuge with Rotor Head and Voltage Stabilizer (Laby)	SSSC/37"B"/506 dated 05.08.16	14.09.16	1,02,030.00
18	Autoclave (Scientec)	SSSC/37"B"/506 dated 05.08.16	14.09.16	70,110.00
19	Hot air oven (Scientec)	SSSC/37"B"/506 dated 05.08.16	14.09.16	28,500.00
20	Binocular Research Microscope (Olympus)	SSSC/37"B"/505 dated 05.08.16	06.08.16	32,700.00
21	Compound microscope (Olympus)	SSSC/37"B"/506 dated 05.08.16	14.09.16	39,375.00
			Total	Rs.4,41,995.12
Department of Computer Science				
S. No.	<i>Name(with Model&Make)</i>	<i>OrderDate</i>	<i>Installationdate</i>	<i>CostinINR</i>
22	12 Desktop Computers (HP280 GTMT) Intel Core I3	SSSC/88/451 dated 29.07.16	09.08.16	4,22,100.00
			Total	Rs.4,22,100
Department of Physics				
S. No.	<i>Name(with Model&Make)</i>	<i>OrderDate</i>	<i>Installationdate</i>	<i>CostinINR</i>
23	10MHZ single trace oscilloscope	SSSC/37"B"/485 dated 03.08.16	25.03.17	24418.00
24	Digital Nanometer	SSSC/37"B"/485 dated 03.08.16	25.03.17	7581.00
25	AC Millivoltmeter ACV-25 (0-300 V)	SSSC/37"B"/485 dated 03.08.16	25.03.17	6433.00
26	AF Generator 10HZ To 1 MHZ, AO309	SSSC/37"B"/485 dated 03.08.16	25.03.17	13566.00
27	Study of thermo EMF using Copper-Constantan thermocouple	SSSC/37"B"/485 dated 03.08.16	25.03.17	10289.00
28	Measurement of resistivity of Semi Conductor by Four Probe Method	SSSC/37"B"/485 dated 03.08.16	25.03.17	19494.00
29	Hall effect experiment setup with all accessories	SSSC/37"B"/485 dated 03.08.16	25.03.17	47652.00

30	Newton's ring experiment setup with all accessories	SSSC/37"B"/485 dated 03.08.16	25.03.17	10613.00
31	Absorption Spectrum of Iodine Vapour with all accessories	SSSC/37"B"/485 dated 03.08.16	25.03.17	17238.00
32	Planks constant apparatus with all accessories	SSSC/37"B"/485 dated 03.08.16	25.03.17	25992.00
33	Magnetic Hysteresis loop tracer with all accessories (W/O CRO)	SSSC/37"B"/485 dated 03.08.16	25.03.17	25992.00
34	CRO 30MHZ dual channel, dual trace with inbuilt 30MHZ FC	SSSC/37"B"/485 dated 03.08.16	25.03.17	21446.00
35	Laser experiment with He-Ne Laser with all accessories	SSSC/37"B"/485 dated 03.08.16	25.03.17	36822.00
36	Mercury vapour lamp 80 w fitted in box with choke	SSSC/37"B"/485 dated 03.08.16	25.03.17	6932.00
37	Michelson Interferometer with built-in Sodium source and with all accessories	SSSC/37"B"/485 dated 03.08.16	25.03.17	47652.00
38	Study of Zeeman Effect with all accessories.	SSSC/37"B"/484 dated 03.08.16	25.03.17	95,816.00
39	Digital Frequency Counter 20 MHZ	SSSC/37"B"/486 dated 03.08.16	15.09.16	12090.00
40	Sodium vapour lamp 55w with transformer	SSSC/37"B"/486 dated 03.08.16	15.09.16	10659.00
41	e/m Apparatus by Bar Magnet Method	SSSC/37"B"/486 dated 03.08.16	15.09.16	22750.00
42	Energy band gap by four probe method	SSSC/37"B"/486 dated 03.08.16	15.09.16	18240.00
43	Diode laser diffraction experiment ES- 361	SSSC/37"B"/486 dated 03.08.16	15.09.16	13260.00
44	Characteristics of Solar Cell ES -290	SSSC/37"B"/486 dated 03.08.16	15.09.16	17550.00
			Total	Rs. 512485.00
GRAND TOTAL –Rs.31,94,234.12				

1. Department of Botany & Microbiology Minor Instruments for UG Lab Practical

S.No.	Name of Instrument	Model	Price	Uses
1.	Trinocular Microscope	Olympus cx-41-TR	228880/-	Microscope is used for studying microscopic details of stained cultures of bacteria, fungi, and hematology cell for undergraduate students of Botany & Microbiology.
2	Digital Camera attached with microscope	Olympus	74800/-	Camera is used to obtain Microphotograph of studied material for above mentioned purposes.
3	Mono Quartz Distillation unit assembly with power supply (DAPS)	Borosil Cat no. 3363042	45779/-	Single distill water is used for media preparation of Microbiology studies

New Experiments introduced in the Lab.

S.No.	Name of Instrument	Model	Price	Uses
1.	PC based double beam U-V-V Spectrophotometer (including operating software, Laptop & Printer)	Systronics Model no. 2201	430920/-	Practical related to microbiology for growth curve and enzyme studies.

3. Department of Chemistry

List of Minor Instruments to be used in UG and PG labs

1	High Precision water bath Model: SE-135	38,950.00	It is used to boil the reaction mixture at desired temperature and for definite duration of time used for organic synthesis. Mainly used for conducting lab practical.
2	Digital Melting Point Model: SE-174	53,900.00	To find out more accurate melting point of the substance. Mainly used for conducting lab practical.
3	Vacuum Compressor Pump Model: SE-173	18,975.00	Used in inorganic chemistry for gravimetric estimation of metal ions. Mainly used for conducting lab practical.
4	Clevenger Apparatus 1000ml.	9450.00	For extraction of oil. Mainly used for conducting lab practical.

New experiments introduced in the PG Lab.

S.No.	Name of Experiment	Model	Price	Uses
1.	Synthesis of organic and inorganic compounds using synthesis microwave	Model: Monowave 200	9,16,000.00	Synthesis Microwave is an important tool in green chemistry. The experiment, which makes use of more solvent and run for longer duration of time at room temperature, can be planned and accomplished in microwave using very less solvents and less duration. It can also be used for extraction. It will be used for green synthesis of organic compounds which is included in our M.Sc. syllabus.
2.	Purity determination of synthesized compounds using High Performance Liquid Chromatography (HPLC)	Model: LC 138(B)	9,97,500.00	Identification of secondary metabolites from different medicinal plant extracts

4. Department of Computers Sc. and Application

S.No	Product	Model	Quantity	Prize	Utility
1.	Desktop Computers	(HP280 GTMT) Intel Core I3	12	Rs. 4,22,100/-	They are being used for lab Practical for UG and PG Classes.

New Experiments introduced in the Lab.

S.No.	Name of Experiment	Model	Price
1.	Extraction of a lipid from a solid material using Soxhlet apparatus	BTI	7,182/-

Department of Physics

S.no.	Name of the Equipment/Item with Specifications	Make	Quantity	Amount in Rs.	Uses
1.	10MHZ single trace oscilloscope	Mars	2	24418/-	To view waveforms of AC signals and measurements of frequency and voltage of AC signals
2.	Digital Nanometer	Omega	1	7581/-	To measure very small voltage (nano volt) signals
3.	AC Millivoltmeter ACV-25(0-300 V)	Omega	1	6433/-	To measure very small voltages (milli volt) signals
4.	AF Generator 10HZ To 1 MHZ, AO309	Omega	2	13566/-	Source of different waveform and frequency AC signals (AF range)
5.	CRO 30MHZ dual channel, dual trace	Scientific	1	21446/-	To view two waveforms of AC signals simultaneously for comparative and superimposition studies of two signals and measurements of frequency and voltage of AC signals
6.	Mercury vapour lamp 80 w fitted in box with choke	Philips	2	6932/-	Mercury light source for optics experiments
7.	Digital Frequency Counter 20 MHZ	Omega	1	12090/-	Measurement of frequency of AC signals from oscillators.
8.	Sodium vapour lamp 55w fitted in the box with transformer	Mars	1	10659/-	Sodium light source of optics experiments

New Experiments introduced in the Lab.

Department of Zoology and Biotechnology					
Minor Instruments for UG and PG labs					
S.No.	Name of Instrument	Model/make	Cost	Uses in UG& PG Laboratory	
1.	Horizontal Electrophoresis Unit with Power Supply	HiMedia	36,900/-	Screening of DNA on the basis of its molecular size.	
2.	Digital Balance	Wenser	18,876.12/-	For weighing various chemicals.	
3.	Shaker Incubator Heating	BTI	79,800/-	Incubation of microbes for mass culturing by shaking at a specific temperature.	
4.	Water Bath	Scientec	12,500/-	To incubate samples in water at a constant temperature over a long period of time.	
5.	Thin Layer Chromatography	Sentwin	9,690/-	Separation of non-volatile mixtures.	
6.	Paper Chromatography	Laby	4,332/-	Separation of colored chemicals or substances.	
7.	Refrigerated Microcentrifuge with Rotor Head and Voltage Stabilizer	Laby	1,02,030/-	For separation of substances of greater or lesser density in refrigerated condition.	
8.	Autoclave	Scientec	70,110/-	Wet sterilization of glassware and medium	
9.	Hot air oven	Scientec	28,500/-	Dry heat for sterilization.	
10.	Binocular Research Microscope	Olympus	32,700/-	To view smaller specimens such as cell structures, this cannot be seen at lower levels of magnification.	
11.	Compound microscope	Olympus	39,375/-	To view smaller specimens such as cell structures, this cannot be seen at lower levels of magnification.	
S.No.	Name of Experiments		Model	Quantity	Prices
1.	Study of Zeeman Effect with sodium source		Optochem	1	95,816/-
2.	Study of thermo EMF using Platinum Resistance Thermometer		Acculab	1	10289/-
3.	Study of characteristics of Laser light with He-Ne Laser		Optochem	1	36822/-
4.	Study of Michelson fringes by Michelson Interferometer with built-in Sodium light source		Indosaw	1	47652/-
5.	To study characteristics of Solar Cell		Omega	1	17550/-

6.	Study of diffraction using Diode laser	Omega	1	13260/-
7.	Measurement of resistivity of Semi conductormaterials by Four Probe Method	SES	1	19494/-
8.	Study of Hall effect and determination of type of semiconductor.	Indosaw	1	47652/-
9.	Determination of energy band gap of semiconductor by four probe method	Mars	1	18240/-
10.	To study absorption spectrum of Iodine Vapour and determination of excitation energy of Sodium.	Acculab	1	17238/-
11.	Determination of Planks constant using photo cell.	Optochem	1	25992/-
12.	Magnetic Hysteresis loop tracer of ferromagnetic materials	SES	1	25992/-
13.	Determination of e/m of an electron by Bar Magnet Method	Omega	1	22750/-

Department of Botany & Microbiology

S.No	Name of Instrument	Model	Price	Uses
1.	Camera attached with microscope	Olympus	74800/-	Camera is used to obtain Microphotograph of studied material for above maintation purposes.
2.	PC based double beam U-V-V Spectrophotometer (including operating software, Laptop & Printer)	Systronics Model no. 2201	430920/-	Spectrophotometer is in use for practicals related to microbiology for growth curve and enzyme Studies.

Department of Chemistry

S.No.	Name of Instrument	Model	Price	Uses
1.	Synthesis Microwave	Model: Monowave 200	9,16,000.00	Synthesis Microwave is an important Tool in greenchemistry.The Experiment , which make use of more solvent and run for longer duration of time at room temperature, can be planned and accomplished in microwave using very less solvents and less duration. It can also be used for extraction.Itwil be used for green synthesis of organic compounds which is included in our M.Sc. syllabus.
2.	High Performance Liquid Chromatography (HPLC)	Model: LC 138(B)	9,97,500.00	Identification of secondary metabolites from different medicinal plant extracts

Department of Zoology & Biotechnology

S.No.	Name of Instrument	Model	Price	Uses
1.	Soxhlet Apparatus	BTI	7,182/-	Extraction of a lipid from a solid material.


Department of Physics

S.No.	Name of Instrument	Model	Quantity	Prices
1.	Study of Zeeman Effect with all accessories.	Optochem	1	95,816/-
2.	Study of thermo EMF using Platinum Resistance Thermometer.	Acculab	1	10289/-
3.	Laser experiment with He-Ne Laser with all	Optochem	1	36822/-

	accessories			
4.	Michelson Interferometer with builtin Sodium with all accessories	Indosaw	1	47652/-
5.	Characteristics of Solar Cell	Omega	1	17550/-
6.	Diode laser diffraction experiment	Omega	1	13260/-

Details of Equipment acquired under FIST Program

Department of Physics

Name of the Equipment	High End GPU Workstation
Model Number	Tyrone Camarero-DS300TR-48
Complete Specification	(2xIntel Xeon Processor, 128 GB RAM, NVIDIA Graphic Card, HDD-2*2000 GB SATA with SSD and 24 inch Full HD Monitor) Liquid cooled Model, Open source Linux.
Details of Manufacturer	
Name	Netweb Technologies India Pvt Ltd
Address	Plot No-H1, Pocket 9, Faridabad Industrial Town (FIT), Sec 57, Faridabad, Ballabhgarh, Haryana 121004, India
City	Faridabad, Ballabhgarh
PIN	121004
State	Haryana
Phone	+91-129-2310400
Fax	+91 129 231 0400
Email	info@netwebindia.com
Details of Local Agent / Supplier	
Name	Netweb Technologies India Pvt Ltd
Address	Plot No-H1, Pocket 9, Faridabad Industrial Town (FIT), Sec 57, Faridabad, Ballabhgarh, Haryana 121004, India
City	Faridabad, Ballabhgarh
PIN	121004
State	Haryana
Phone	+91-129-2310400
Fax	+91 129 231 0400
Email	info@netwebindia.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs.10,23,698.00
Used for	Software based Computational work
Scanned Photograph of the Equipment (Front View)	
	

Details of Equipment acquired under FIST Program

<u>Name of the Equipment</u>	GM Counter Setup
Model Number	Nucleonix GC-602A
Complete Specification	GM Counter Halogen Quenched, Radio Active Source Kit (One Gamma & One Beta Source), Copper & Lead Absorber Set.
Details of Manufacturer	
Name	Nucleonix Systems Private Limited
Address	Plot No 162, A & B 1st Floor Phase II, I.D.A.Cherlapally, Hyderabad, Telangana 500051
City	Hyderabad
PIN	500051
State	Telangana
Phone	91-40-2970 6483
Fax	040-27262146
Email	info@nucleonix.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 53933.00
Used for	Study and count of radioactive radiations from radioactive sources.

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Zeeman Effect Apparatus with constant deviation Spectrometer
Model Number	-
Complete Specification	Etalon (Prism, Telescope, Collimator), Sodium source tube, power supply, Electromagnet with field up-to 11 kgauss, Digital Constant 4A current power supply, High quality Micrometer eye piece.
Details of Manufacturer	
Name	Optochem International
Address	WZ- 30/5, Harisingh Park, New Multan Nagar SB Depo, Paschim Vihar, New Delhi-110056, Delhi, India
City	Delhi
PIN	110056
State	M.P.
Phone	(011) 25291619
Fax	91-011-25291851
Email	optochem@vsnl.com, optocheminternational@gmail.com
Details of Local Agent / Supplier	
Name	Optochem International
Address	WZ- 30/5, Harisingh Park, New Multan Nagar SB Depo, Paschim Vihar, New Delhi-110056, Delhi, India
City	Delhi
PIN	110056
State	M.P.
Phone	(011) 25291619
Fax	91-011-25291851
Email	optochem@vsnl.com, optocheminternational@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 95,816.00
Used for	Study of Zeeman Effect, an opto-magnetic phenomenon

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Cathode Ray Oscilloscope
Model Number	ME 3010
Complete Specification	10MHZ Single Trace
Details of Manufacturer	
Name	Mars Edpal Instruments Pvt. Ltd.
Address	3575, Timber Market, Ambala Cantt-133001(India)
City	Ambala
PIN	133001
State	Haryana
Phone	0091-171-2634674
Fax	0091-171-2601090
Email	info@marsedpal.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 24418.00
Used for	Measurement of frequency and voltage of A.C. signals

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Digital Nanoammeter
Model Number	DNM - 021
Complete Specification	Range: 100 nA, 1 mA, 10 mA, 100 mA, 1mA. Accuracy: $\pm 0.25\%$ for all ranges. Power Requirement: 230 V $\pm 10\%$, 50 Hz, A.C Mains.
Details of Manufacturer	
Name	Omega Electronics
Address	B-28, Fateh Singh Scheme Opposite Rajputana Palace Sheraton Jaipur – 302006 Rajasthan, India.
City	Jaipur
PIN	302006
State	Rajasthan
Phone	91-141-2375647, 2379223
Fax	91-141-2204481
Email	info@omegaelectronics.net, omegajaipur62@gmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 7581.00
Used for	Measuring nano-current of AC signals
Scanned Photograph of the Equipment (Front View)	
	

Details of Equipment acquired under FIST Program

Name of the Equipment	AC Millivoltmeter (0-300 V)
Model Number	ACV-25
Complete Specification	<p>Circuit: Solid State using ICs with protected input and meter circuits.</p> <p>Voltage Range: 0-300Volts AC covered in 11 ranges with full scale deflections of 3mV, 10 mV, 30 mV, 100 mV, 300 mV, 1V, 3V, 10V, 30V, 100V & 300 Volts.</p> <p>Decibel Range: -50 to +50 dBs.</p> <p>Frequency Range: 5 Hz to 30KHz.</p> <p>Accuracy : $\pm 3\%$ F.S.D. at 30 Hz to 15 KHz.</p>
Details of Manufacturer	
Name	Omega Electronics
Address	B-28, Fateh Singh Scheme Opposite Rajputana Palace Sheraton Jaipur – 302006 Rajasthan, India.
City	Jaipur
PIN	302006
State	Rajasthan
Phone	91-141-2375647, 2379223
Fax	91-141-2204481
Email	info@omegaelectronics.net, omegajaipur62@gmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 6433.00
Used for	To measure AC milli voltages

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	A.F./R.F. Generator 10HZ To 1 MHZ
Model Number	AO-309
Complete Specification	Frequency Range: 10 Hz to 1 MHz in five ranges. Frequency accuracy: $\pm 2\%$ or 2 cycles whichever is greater. Output Waveforms: Sinusoidal & square. Stability: $\pm 2\%$ (after 10 minutes warm up). Output Voltage Sine Wave: 0 to 0.3-3-30 Volts RMS. Output Voltage Square Wave: 0 to 1-10-100 Volts Peak.
Details of Manufacturer	
Name	Omega Electronics
Address	B-28, Fateh Singh Scheme Opposite Rajputana Palace Sheraton Jaipur – 302006 Rajasthan, India.
City	Jaipur
PIN	302006
State	Rajasthan
Phone	91-141-2375647, 2379223
Fax	91-141-2204481
Email	info@omegaelectronics.net, omegajaipur62@gmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 13566.00
Used for	Generator of Ac signals of different frequency and shape

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Study of Thermo EMF
Model Number	-
Complete Specification	Hot Plate, Spot Galvanometer, 2 Copper beaker, stand, resistance box, key, Platinum resistance thermometer, Potentiometer.
Details of Manufacturer	
Name	Acculab Amarsons Industries
Address	2539, Bengali Street, Hargolal Road, Ambala Cantt - 133001
City	Ambala
PIN	133001
State	Haryana
Phone	0171 - 2632998
Fax	-
Email	acculab@rediffmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 10289.00
Used for	Study and measurement of thermo emf.

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Measurement of resistivity of Semi Conductor at different temperature by Four Probe Method
Model Number	DFP-02
Complete Specification	Oven upto 200C, Four Probe Arrangement (Inside oven)& Ge-n Type (Inside oven), Thermometer & Four Probe measurement and power supply
Details of Manufacturer	
Name	SES Instruments Pvt. Ltd.
Address	452 AdrashNagar,Roorkee - 247 667 (Haridwar) Uttarakhand, India
City	Roorkee (Haridwar)
PIN	247 667
State	Uttarakhand
Phone	+91-1332-272852, 277118
Fax	+91-1332-277118, 274831
Email	info@sesinstruments.com, sesinstruments.india@gmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 19494.00
Used for	Measurement of resistivity of semiconductors

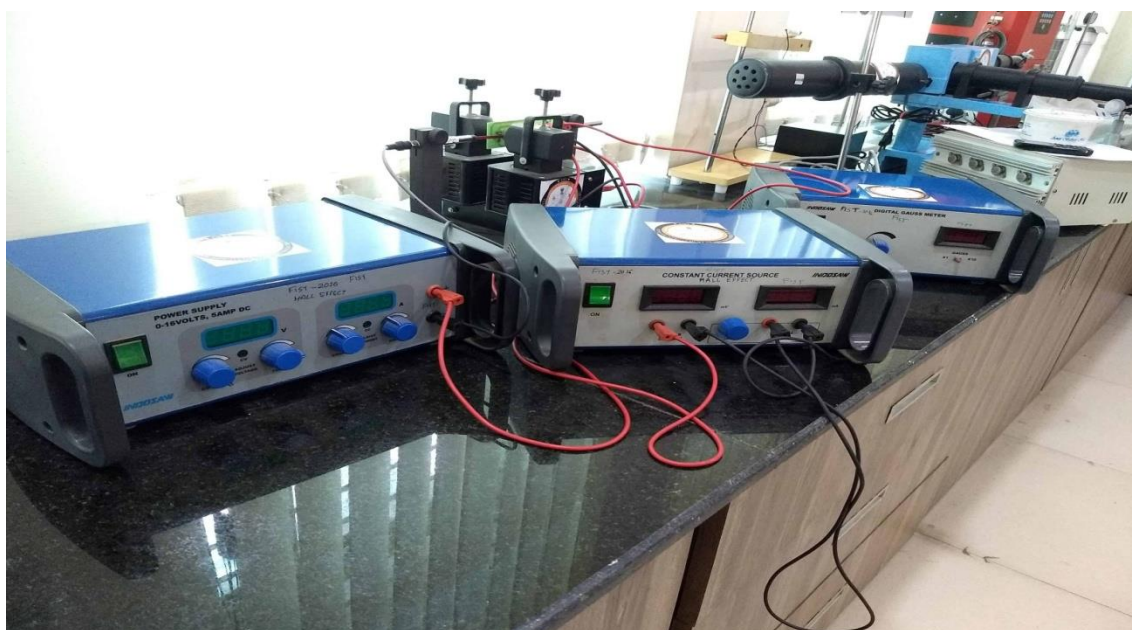
Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Study of Hall effect (experiment setup)
Model Number	SK-006
Complete Specification	Hall Probe, Electromagnet, Constant current power supply, Digital Gauss Meter, Hall Effect Setup
Details of Manufacturer	
Name	Osaw Industrial Products Private Limited
Address	P.O. Box No.42, Osaw Complex, Jagadhri Road Pooja Vihar, Ambala Cantt - 133001, Haryana, India
City	Ambala
PIN	133001
State	Haryana
Phone	91-171-2699347, 2699267, 08045315621
Fax	91-171-2699102, 2699222
Email	eenquiry@indosaw.com, dservicing@indosaw.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 47652.00
Used for	Study of Hall Effect and identifying the n-type/p-type semiconductor

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Newton's ring experiment setup
Model Number	-
Complete Specification	Newton's rings setup in one complete unit
Details of Manufacturer	
Name	Optochem International
Address	WZ- 30/5, Harisingh Park, New Multan Nagar SB Depo, Paschim Vihar, New Delhi-110056, Delhi, India
City	Delhi
PIN	110056
State	M.P.
Phone	(011) 25291619
Fax	91-011-25291851
Email	optochem@vsnl.com, optocheminternational@gmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 10613.00
Used for	Study of Newton's rings

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Absorption Spectrum of Iodine Vapour
Model Number	-
Complete Specification	Iodine glass tube with heater , Iodine granules,Spectrometer, Lamp, Grating, Heater power supply
Details of Manufacturer	
Name	ACCULAB AMARSONS' INDUSTRIES
Address	2539, Bengali Street,Hargolal Road,Ambala Cantt - 133001
City	Ambala
PIN	133001
State	Haryana
Phone	0171 - 2632998
Fax	-
Email	acculab@rediffmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 17238.00
Used for	Study of Absorption spectrum of Iodine vapour.

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Determination of Planks constant using Photocell
Model Number	-
Complete Specification	Photocell with lamp in one unit with colour filters.
Details of Manufacturer	
Name	Optochem International
Address	WZ- 30/5, Harisingh Park, New Multan Nagar SB Depo, Paschim Vihar, New Delhi-110056, Delhi, India
City	Delhi
PIN	110056
State	M.P.
Phone	(011) 25291619
Fax	91-011-25291851
Email	optochem@vsnl.com, optocheminternational@gmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 25992.00
Used for	Determination of Planck's constant

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Magnetic Hysteresis loop tracer Complete(W/O CRO)
Model Number	HLT-111
Complete Specification	Hysteresis loop tracer, HLT-111, (Main Unit), Solenoid, Sample Holder, Sample Set (Hard Steel, Mild Steel, Com. Nickel in Wire form).
Details of Manufacturer	
Name	SES Instruments Pvt. Ltd.
Address	452 AdrashNagar,Roorkee - 247 667 (Haridwar) Uttarakhand, India
City	Roorkee (Haridwar)
PIN	247 667
State	Uttarakhand
Phone	+91-1332-272852, 277118
Fax	+91-1332-277118, 274831
Email	info@sesinstruments.com, sesinstruments.india@gmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 25992.00
Used for	Hysteresis loop tracing of ferromagnetic materials

Scanned Photograph of the Equipment (Front View)




Details of Equipment acquired under FIST Program

Name of the Equipment	Cathode Ray Oscilloscope 30MHZ
Model Number	Sm-410
Complete Specification	30MHZ dual channel, dual trace with inbuilt 30MHZ FC
Details of Manufacturer	
Name	Scientific Mes-Technik Pvt.Ltd.
Address	B-14, Pologround Industrial Estate, Indore - 452 015 INDIA
City	Indore
PIN	452 015
State	M.P.
Phone	+91-731-2422330/33
Fax	+91-731-2422334
Email	sales@scientificindia.com, info@scientificindia.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 21446.00
Used for	To study, compare and superimpose two AC signals measuring frequency and voltage of AC signals


Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Laser characteristics and wavelength determination experiment with He-Ne
Model Number	-
Complete Specification	He-Ne Laser with power supply, laser beam characteristics kit, precision mount, base for the mounts, circular table, screen, measuring tape, convex lens, pin hole, detector, digital meter, polarizer & analyzer, double slit, beam expander, tptal reflectors, beam splitter, knife edge, graph paper
Details of Manufacturer	
Name	Optochem International
Address	WZ- 30/5, Harisingh Park, New Multan Nagar SB Depo, Paschim Vihar, New Delhi-110056, Delhi, India
City	New Delhi
PIN	110056
State	Delhi
Phone	(011) 25291619
Fax	91-011-25291851
Email	optochem@vsnl.com, optocheminternational@gmail.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 36822.00
Used for	Study of laser light characteristics
Scanned Photograph of the Equipment (Front View)	
	

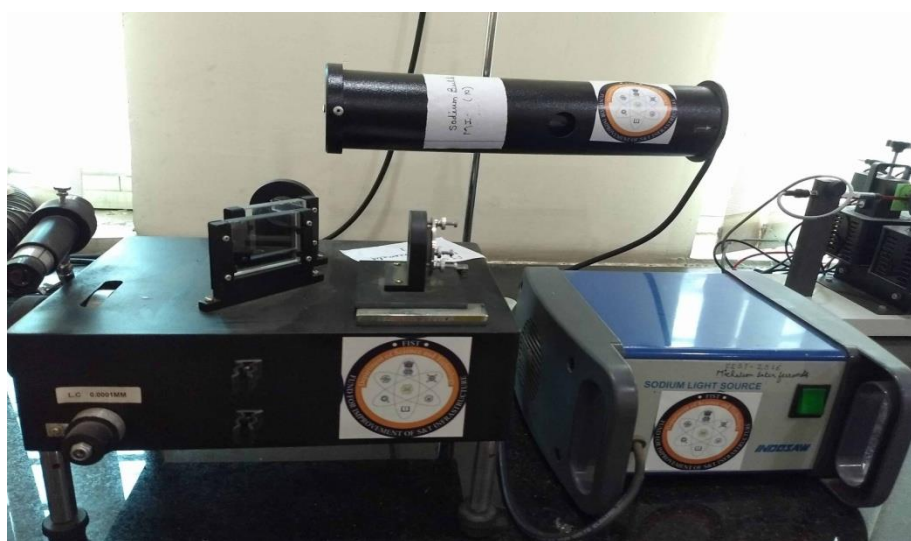
Details of Equipment acquired under FIST Program

Name of the Equipment	Mercury vapour lamp 80 w fitted in box with choke
Model Number	-
Complete Specification	Mercury vapour lamp with choke and box
Details of Manufacturer	
Name	Philips Electronics India Limited
Address	9th Floor, DLF 9-B, DLF Cyber City, DLF Phase – 3, Sector 25, Gurgaon, Haryana, India
City	Gurgaon
PIN	122010
State	Haryana
Phone	+91-124-4606000
Fax	+91-124-4606666
Email	corpcomm.india@philips.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 6932.00
Used for	Mercury light source for optics lab
Scanned Photograph of the Equipment (Front View)	
	

Details of Equipment acquired under FIST Program

Name of the Equipment	Michelson Interferometer with built-in Sodium Light source
Model Number	SK-002
Complete Specification	Michelson Interferometer, Sodium Light source, Telescope, Pin Hole.
Details of Manufacturer	
Name	Osaw Industrial Products Private Limited
Address	P.O. Box No.42, Osaw Complex, Jagadhri Road Pooja Vihar, Ambala Cantt - 133001, Haryana, India
City	Ambala
PIN	133001
State	Haryana
Phone	91-171-2699347, 2699267, 08045315621
Fax	91-171-2699102, 2699222
Email	eenquiry@indosaw.com, dservicing@indosaw.com
Details of Local Agent / Supplier	
Name	Nuchem International
Address	1510, Napier Town, Jabalpur - 482001 (M.P.)
City	Jabalpur
PIN	482001
State	M.P.
Phone	2411454
Fax	0761-2402397
Email	Nuchemi31@rediffmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 47652.00
Used for	To study the Michelson fringes using Michelson Interferometer

Scanned Photograph of the Equipment (Front View)




Details of Equipment acquired under FIST Program

Name of the Equipment	Digital Frequency Counter
Model Number	DFC-20 M
Complete Specification	Digital Frequency Counter up to 20 MHZ
Details of Manufacturer	
Name	Omega Electronics
Address	B-28, Fateh Singh Scheme Opposite Rajputana Palace Sheraton Jaipur – 302006 Rajasthan, India.
City	Jaipur
PIN	302006
State	Rajasthan
Phone	91-141-2375647, 2379223
Fax	91-141-2204481
Email	info@omegaelectronics.net, omegajaipur62@gmail.com
Details of Local Agent / Supplier	
Name	Sumeet Enterprises
Address	Office No-103, Malviya Nagar, Bhopal - 462003
City	Bhopal
PIN	462003
State	M.P.
Phone	91-0755-2551885, 2675730
Fax	91-0755-2675730
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 12090.00
Used for	To measure the frequency of AC signal

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	e/m Apparatus by Bar Magnet Method (Thomson Method)
Model Number	EM-30
Complete Specification	Cathode Ray Tube, High /voltage Power Supply for C.R.T. with D.C. Digital Voltmeter.
Details of Manufacturer	
Name	Omega Electronics
Address	B-28, Fateh Singh Scheme Opposite Rajputana Palace Sheraton Jaipur – 302006 Rajasthan, India.
City	Jaipur
PIN	302006
State	Rajasthan
Phone	91-141-2375647, 2379223
Fax	91-141-2204481
Email	info@omegaelectronics.net, omegajaipur62@gmail.com
Details of Local Agent / Supplier	
Name	Sumeet Enterprises
Address	Office No-103, Malviya Nagar, Bhopal - 462003
City	Bhopal
PIN	462003
State	M.P.
Phone	91-0755-2551885, 2675730
Fax	91-0755-2675730
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 22750.00
Used for	To find the electronic charge and mass ratio of electron
Scanned Photograph of the Equipment (Front View)	
	

Details of Equipment acquired under FIST Program

Name of the Equipment	Characteristics of Solar Cell
Model Number	ES-290
Complete Specification	Digital Meters with Solar Cell, 5 area choppers and 100wt. table lamp.
Details of Manufacturer	
Name	Omega Electronics
Address	B-28, Fateh Singh Scheme Opposite Rajputana Palace Sheraton Jaipur – 302006 Rajasthan, India.
City	Jaipur
PIN	302006
State	Rajasthan
Phone	91-141-2375647, 2379223
Fax	91-141-2204481
Email	info@omegaelectronics.net, omegajaipur62@gmail.com
Details of Local Agent / Supplier	
Name	Sumeet Enterprises
Address	Office No-103, Malviya Nagar, Bhopal - 462003
City	Bhopal
PIN	462003
State	M.P.
Phone	91-0755-2551885, 2675730
Fax	91-0755-2675730
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 17550.00
Used for	To study the characteristics of Solar Cell

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Diode laser diffraction experiment
Model Number	ES-361
Complete Specification	Diode Laser with Power Supply for 670 nm visible red wavelength and H&W Diffraction Grating.
Details of Manufacturer	
Name	Omega Electronics
Address	B-28, Fateh Singh Scheme Opposite Rajputana Palace Sheraton Jaipur – 302006 Rajasthan, India.
City	Jaipur
PIN	302006
State	Rajasthan
Phone	91-141-2375647, 2379223
Fax	91-141-2204481
Email	info@omegaelectronics.net, omegajaipur62@gmail.com
Details of Local Agent / Supplier	
Name	Sumeet Enterprises
Address	Office No-103, Malviya Nagar, Bhopal - 462003
City	Bhopal
PIN	462003
State	M.P.
Phone	91-0755-2551885, 2675730
Fax	91-0755-2675730
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 13260.00
Used for	To find the wavelength of Laser light and study the Diffraction using Diode Laser

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Energy band gap by four probe method
Model Number	ME-167
Complete Specification	Heater with four probe setup for measuring voltage and current through semiconductor
Details of Manufacturer	
Name	Mars Edpal Instruments Pvt. Ltd.
Address	3575, Timber Market, Ambala Cantt-133001 (India)
City	Ambala
PIN	133001
State	Haryana
Phone	0091-171-2634674
Fax	0091-171-2601090
Email	info@marsedpal.com
Details of Local Agent / Supplier	
Name	Sumeet Enterprises
Address	Office No-103, Malviya Nagar, Bhopal - 462003
City	Bhopal
PIN	462003
State	M.P.
Phone	91-0755-2551885, 2675730
Fax	91-0755-2675730
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 18240.00
Used for	To determine energy band gap of semiconductor

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program


Name of the Equipment	Sodium vapour lamp 55w
Model Number	55 wt
Complete Specification	Sodium vapour lamp 55 wt, Transformer, wooden Box
Details of Manufacturer	
Name	Mars Edpal Instruments Pvt. Ltd.
Address	3575, Timber Market, Ambala Cantt-133001(India)
City	Ambala
PIN	133001
State	Haryana
Phone	0091-171-2634674
Fax	0091-171-2601090
Email	info@marsedpal.com
Details of Local Agent / Supplier	
Name	Sumeet Enterprises
Address	Office No-103, Malviya Nagar, Bhopal - 462003
City	Bhopal
PIN	462003
State	M.P.
Phone	91-0755-2551885, 2675730
Fax	91-0755-2675730
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 10659.00
Used for	Light source for optics experiment

Scanned Photograph of the Equipment (Front View)




Details of Equipment acquired under FIST Program

Department of Botany & Microbiology

Name of the Equipment	Trinocular Microscope
Model Number	Olympus cx-41-TR
Complete Specification	It provides high image clarity in a variety of observation methods, including bright field, phase contrast and fluorescence. Optical system: -UIS2 (Universal infinity-corrected) optical system Illumination: -30W halogen lamps, Köhler illumination, Hg lamp for fluorescence illumination Focussing: -• Stage height movement,• Stroke per rotation: 36.8 mm,• Full stroke range: 25 mm.,• Tension adjustment on coarse focus adjustment knob Revolver: -Built-in 5 pieces, Stage Travelling range 76 mm (X) x 50 mm (Y), stage size: 188 x 134 mm Objectives: -4×, 10×, 20×, 40×, 60×, 100× (oil)
Details of Manufacturer	
Name	Olympus
Address	Olympus Opto System India (pvt. Ltd.) A-5 Mohan Co-operative Indl. Estate, Mathura Road New Delhi
City	New Delhi
PIN	110044
State	New Delhi
Phone	011-30886743
Fax	-
Email	info@olympusoptosystems.in
Details of Local Agent /Supplier	
Name	Sumeet Enterprises
Address	Office no. 103, Malviya nagar, Near Panchanand Building &RoshanpuraChouraha, Bhopal
City	Bhopal
PIN	462003
State	MP
Phone	9425345376
Fax	-
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign exchange)	-
Actual Cost (in Indian Rupees)	228880/-
Used for	Microscope is used for studying microscopic details of stained cultures of bacteria, fungi, and haematology cell for undergraduate students of Botany & Microbiology.
Scanned Photograph of the Equipment (front view)	
	

DetailsofEquipmentacquiredunderFISTProgram

Nameof theEquipment	Camera attached with microscope
ModelNumber	Cannon EOS series
CompleteSpecification	Cannon EOS series interchangeable lens type live view 18 mega pixels digital camera body having CMOS sensor with USB interface alongwith one zoom lens
DetailsofManufacturer	
Name	Olympus
Address	Olympus Opto System India (pvt. Ltd.)
City	New Delhi
PIN	110044
State	New Delhi
Phone	011-30886743
Fax	-
Email	info@olympusoptosystems.in
DetailsofLocalAgent /Supplier	
Name	Sumeet Enterprises
Address	Office no. 103, Malviya nagar, Near PanchanandBuilding &RoshanpuraChouraha,Bhopal
City	Bhopal
PIN	462003
State	M.P.
Phone	9425345376
Fax	-
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	74800/-
Used for	Camera is used to obtain microphotograph of studied material for above maintained purpose
Scanned Photograph of the Equipment (front view)	
	


DetailsofEquipmentacquiredunderFISTProgram

<u>Name of the Equipment</u>	Mono Quartz Distillation unit assembly with power supply (DAPS)
Model Number	Borosil Cat no. 3363042
Complete Specification	Mono Quartz Distillation unit panel mounted vertical model single with power supply cap.- 2.5 lit/hr
<u>Details of Manufacturer</u>	
Name	Borosil limited
Address	1101 Crescenzo, G block, Opp. MCA Club, Bandra Kurla Complex Bandra, Mumbai
City	Mumbai
PIN	400051
State	Maharashtra
Phone	02267406300
Fax	-
Email	borosil@borosil.com
<u>Details of Local Agent / Supplier</u>	
Name	Newtech instruments
Address	Shop no. M2 Chitra complex 178, Zone 1 MP Nagar, Bhopal
City	Bhopal
PIN	462011
State	MP
Phone	9827098426
Fax	-
Email	newtechinstruments2012@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	45779/-
Used for	Single distill water is used for media preparation of Microbiology studies of UG Classes.

Scanned Photograph of the Equipment (front view)



DetailsofEquipmentacquiredunderFISTProgram

<u>Name of the Equipment</u>	PC based double beam U-V-V Spectrophotometer(including operating software, Laptop & Printer)
Model Number	Systronics Model no. 2201
Complete Specification	PC based double beam U-V-V Spectrophotometer 190nm-1000nm , 0.5 to 6.0 nm adjustable B/W (including operating software, Laptop & Printer) model no. 2201
<u>Details of Manufacturer</u>	
Name	Systronics
Address	Systronics (India) Ltd. 262 1st floor, Major Shopping centre opp. Hotel Tulsi exotic Zone II MP nagar Bhopal
City	Bhopal
PIN	462011
State	MP
Phone	07552555411
Fax	-
Email	sysbpl@systronicsindia.com
<u>Details of Local Agent / Supplier</u>	
Name	Newtech instruments
Address	Shop no. M2 Chitra complex 178, Zone 1 MP nagar, Bhopal
City	Bhopal
PIN	462011
State	MP
Phone	9827098426
Fax	-
Email	newtechinstruments2012@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	430920/-
Used for	Spectrophotometer is in use for practical related to microbiology for growth curve and enzyme studies.
Scanned Photograph of the Equipment (front view)	
	

Details of Equipment acquired under FIST Program

Department of Computer Science & Application

Name of the Equipment	Desktop Computer
Model Number	HP 280 GT MT
Complete Specification	Desktop Computer with Intel Core i3, 4 GB RAM, 500 GB HDD, 18.5" TFT, KB-Mouse
Details of Manufacturer	
Name	HP Computing and Printing Systems India Private Limited
Address	Hewlett Packard Global soft PVT Ltd, EC2 Campus, HP Avenue, Survey No. 39 (PART), Electronic City Phase II, Hosur Road
City	Bangalore
PIN	560 100
State	Karnataka
Phone	1800 108 4747
Fax	-
Email	hpstoreindia@customerservice.team, shiv-shankar.bhowmick@hpe.com
Details of Local Agent / Supplier	
Name	ITSC Technologies Pvt. Ltd.
Address	507,BDA Complex, 7 No. Bus Stop, Shivaji Nagar Bhopal - 462016 (M.P.)INDIA
City	Bhopal
PIN	462016
State	M.P.
Phone	+91-755-2767785, +91-755-4232127
Fax	-
Email	info@itscglobal.com , sales@itscglobal.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 35,175/- per unit Total for 12 m/c – Rs. 4,22,100/-
Used for	For Computer practical in Computer Sc. Lab (12 systems)

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program
Department of Zoology and Biotechnology

Name of the Equipment	Autoclave
Model Number	SE-101
Complete Specification	Working pressure variable from 5 psi to 20 psi, working temp. 121 Deg. Celcius, Hydrostatic pressure 2.5kgf/cm sq.g (35psi/40psi)
Details of Manufacturer	
Name	Scientech
Address	94-101, Electronic complex
City	Indore
PIN	452010
State	MP
Phone	91-73-1421-1100
Fax	-
Email	info2scientechnbz.forindia.
Details of Local Agent / Supplier	
Name	Arun and Sons
Address	D-243 Minal Residency
City	Bhopal
PIN	462023
state	M.P.
Phone	9993952868
Fax	0755-4203002
Email	arunandsons@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 70110.00/-
Used for	Wet sterilization of media, cotton plug, glassware and other instruments

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Hot Air Oven
Model Number	SE-127
Complete Specification	Air Circulation fan, Microprocessor Digital Temperature Indicator-cum-Controller, PI Digital Temperature Indicator-cum-Controller With Digital Timer
Details of Manufacturer	
Name	Sciencetech
Address	94-101, Electronic complex
City	Indore
PIN	452010
State	M.P.
Phone	91-73-1421-1100
Fax	-
Email	infosciencetech.bz
Details of Local Agent / Supplier	
Name	Arun and Sons
Address	D-243 Minal Residency
City	Bhopal
PIN	462023
state	M.P.
Phone	9993952868
Fax	
Email	arunandsons@gmail.com
Actual Cost (in Foreign Exchange)	
Actual Cost (in Indian Rupees)	Rs. 28500.00/-
Used for	Dry heat sterilization and incubation of media and samples

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Compound Microscopes
Model Number	HSA model
Complete Specification	Eyepiece 10X, 40X
Details of Manufacturer	
Name	Olympus Magnus
Address	A-3, Sec -81, Phase II
City	Noida
PIN	201305
State	U.P.
Phone	91-11-30886715
Fax	
Email	info@magnusopto.com
Details of Local Agent / Supplier	
Name	Arun and Sons
Address	D-243 MinalResidency
City	Bhopal
PIN	462023
state	M.P.
Phone	9993952868
Fax	
Email	arunandsons@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 39375.00
Used for	To examine microscopic organism and histological slides

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Binocular Research Microscope
Model Number	CH20iNo. 16G0578
Complete Specification	Complete set with 6 V 20W with halogen light, 10X, 40X (spring), 100 X (oil immersion), paired eyepiece wide field 10X
Details of Manufacturer	
Name	Olympus Magnus
Address	Creative per. &Dis Pvt. Ltd. 375/377 Babu Bldg 20,2 nd floor,
City	Mumbai
PIN	400007
State	Maharashtra
Phone	-
Fax	-
Email	salex@ecreativeindia.com
Details of Local Agent / Supplier	
Name	Sumeet Enterprises
Address	108, Malviya Nagar
City	Bhopal
PIN	462023
State	M.P.
Phone	2551885
Fax	-
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 32700.00
Used for	To view microscopic organisms and histological slides

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Paper Chromatography
Model Number	PC- 10
Complete Specification	Chromatography Paper and Cabinet
Details of Manufacturer	
Name	Laby
Address	No 58 Industrial Estate
City	Ambala
PIN	133006
State	Haryana
Phone	09215730
Fax	-
Email	salex@ecreativeindia.com
Details of Local Agent / Supplier	
Name	Arun and Sons
Address	D-243 Minal Residency
City	Bhopal
PIN	462023
State	M.P.
Phone	9993952868
Fax	0755-4203002


Email	arunandsons@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 4332.00
Used for	For Analyzing Complex Mixtures, Separating Colored pigments, amino acids, sugars, lipids etc.

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Refrigerated Centrifuge with Voltage Stabilizer
Model Number	T 55
Complete Specification	Microprocessor based with maximum speed 20000 rpm, temperatures upto -8°C, capacity of 12 microtubes
Details of Manufacturer	
Name	Laby
Address	No. 58 Industrial Estate
City	Ambala
PIN	133006
State	Haryana
Phone	09215730
Fax	-
Email	-
Details of Local Agent / Supplier	
Name	Arun and Sons
Address	D-243 Minal Residency
City	Bhopal
PIN	462023
State	M.P.
Phone	9993952868
Fax	0755-4203002
Email	arunandsons@gmail.com
Actual Cost (in Foreign Exchange)	-

Actual Cost (in Indian Rupees)	Rs. 102030.00
Used for	Separation of cellular organelle, protein and nucleic acid etc.
Scanned Photograph of the Equipment (Front View)	
	

Details of Equipment acquired under FIST Program

Name of the Equipment	Water Bath
Model Number	Se-133 (A)
Complete Specification	6 Holes of Dia.75mm, with Digital Microprocessor, Temp Controller, S. Steel.
Details of Manufacturer	
Name	Scientech
Address	94- Electronic Complex, Pardesipura
City	Indore
PIN	452010
State	M.P.
Phone	91-7314211100
Fax	-
Email	Info@scientech.bz
Details of Local Agent / Supplier	
Name	Sumeet Enterprises
Address	108, Malviya Nagar
City	Bhopal
PIN	462023
State	M.P.
Phone	2551885
Fax	-

Email	sumeenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 12500.00
Used for	To incubate Samples at constant temp.

Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Shaker Incubator
Model Number	BTI-39
Complete Specification	Capacity: 8-500 ml, Double Walled, Stainless Steel, 50 to 250 RPM
Details of Manufacturer	
Name	Bio Technics India
Address	416 Om Sai Nagar, Koradi Road
City	Nagpur
PIN	440030
State	Maharashtra
Phone	9890071678
Fax	(022) 22058121
Email	response@laboratoryequipmentsindia.net
Details of Local Agent / Supplier	
Name	Science World
Address	202, Bhawani Palace, Indrapuri.
City	Bhopal
PIN	462021
State	M.P.
Phone	4218550
Fax	-
Email	scienceworldbpl@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs.79800.00/-
Used for	Mass culturing of bacterial cells isolated from different sources by shaking at a specific temperature.

Scanned Photograph of the Equipment (Front View)

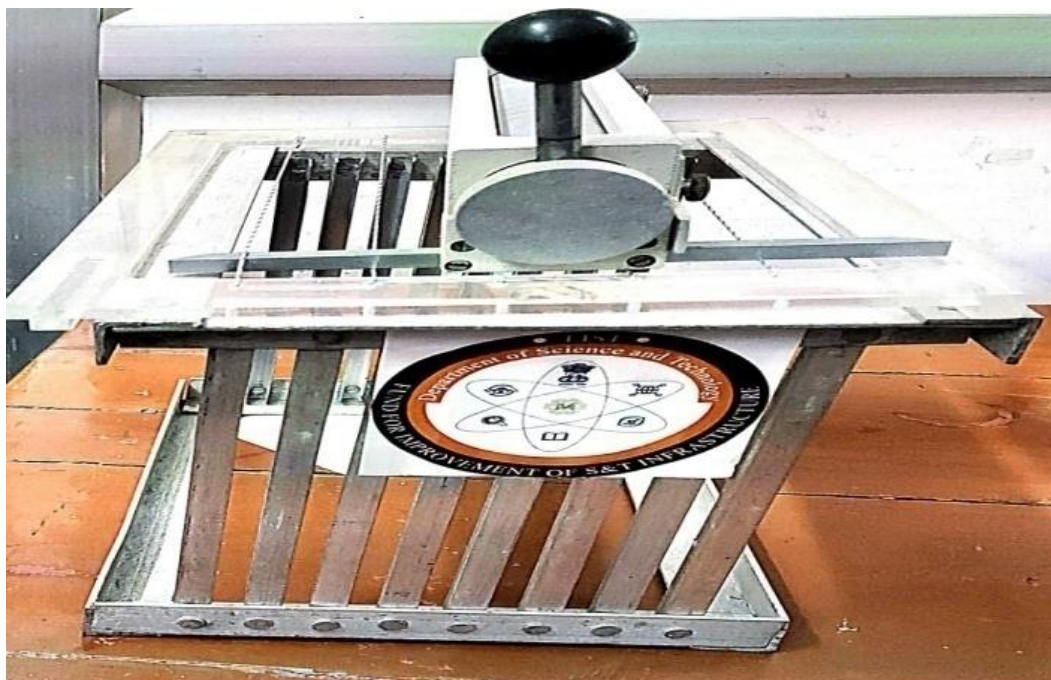


Details of Equipment acquired under FIST Program

Name of the Equipment	Thin layer Chromatography Set
Model Number	-
Complete Specification	Spreader, Perspex Base of 114x 23 cm., aluminium plate rack, Developing tank with lid, 5 T.L.C. glass plates, micropipette, Glass Sprayer, Scriber
Details of Manufacturer	
Name	Sentwin
Address	5422, AnajMandi, Nicholson Road, Panjabi Mohalla
City	Ambala
PIN	133004
State	Haryana
Phone	-
Fax	-
Email	Shreeganes3@rediffmail.com
Details of Local Agent / Supplier	
Name	Science World
Address	202 Bhawani Palace, Indrapuri.
City	Bhopal
PIN	462021
State	M.P.
Phone	4218550
Fax	-
Email	scienceworldbpl@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 9690.00

Used for	Used to separate non-volatile mixtures, identify compounds present in a given mixture.
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Scanned Photograph of the Equipment (Front View)



Details of Equipment acquired under FIST Program

Name of the Equipment	Soxhlet Extraction Heating Mantle
Model Number	BTI
Complete Specification	6 hole with 250 ml capacity, volts:-280, Watts :-900, Amp:-5
Details of Manufacturer	
Name	Bio Technics India
Address	416 Om Sai Nagar, Koradi Road
City	Nagpur
PIN	440030
State	Maharashtra
Phone	9890071678
Fax	(022) 22058121
Email	response@laboratoryequipmentsindia.net
Details of Local Agent / Supplier	
Name	Science World
Address	202, Bhawani Palace, Indrapuri
City	Bhopal
PIN	462021
State	M.P.
Phone	4218550
Fax	-
Email	scienceworldbpl@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 7182.00
Used for	Extraction of lipids and other molecules from a solid sample

Scanned Photograph of the Equipment (Front View)




Details of Equipment acquired under FIST Program

<u>Name of the Equipment</u>	Fermentor
Model Number	Bioreactor 01-02
Complete Specification	16 Bit Microprocessor, 10-60 Degree Celsius, Agitation (for mixing of cells and medium), Aeration (aerobic fermentors); for O ₂ supply, Regulation of factors like temperature, pH, pressure, aeration, nutrient feeding, liquid level etc.,
Details of Manufacturer	
Name	Bioferma
Address	706, Abhishree Avenue
City	Nehru Nagar Cross Road
PIN	380015
State	Ahmadabad
Phone	9319225590
Fax	-
Email	mohit@biozen.co.in
Details of Local Agent / Supplier	
Name	Arun and Sons
Address	D-243 Minal Residency
City	Bhopal
PIN	462023
State	M.P.
Phone	9993952868
Fax	0755-4203002
Email	arunandsons@gmail.com
Actual Cost (in Foreign Exchange)	-

Actual Cost (in Indian Rupees)	Rs. 316692.00
Used for	Bio-fertilizer production, fermentation, waste treatment, etc.
Scanned Photograph of the Equipment (Front View)	
	


Details of Equipment acquired under FIST Program

Name of the Equipment	Hi-Eco Mini Horizontal Electrophoresis Kit
Model Number	LA851
Complete Specification	Gel Casting Tray: 1 No. " Well Comb: 2 Nos. (6 well & 8 well) " Anode Electrode: 1 No. " Cathode Electrode: 1 No. " Connecting Cable: 1 Set (Black &Red) power supply
Details of Manufacturer	
Name	HI-MEDIA
Address	A-516 Bussiness Park Vadhani LBS Marg,
City	Mumbai
PIN	400086
State	Maharashtra
Phone	022 6147 1919
Fax	-
Email	-
Details of Local Agent / Supplier	
Name	Sumeet Enterprises
Address	108, Malviya Nagar
City	Bhopal
PIN	462023
State	M.P.
Phone	2551885
Fax	-
Email	sumeetenterprises@gmail.com
Actual Cost (in Foreign Exchange)	-
Actual Cost (in Indian Rupees)	Rs. 36900.00

Used for	mainly used in separating mixtures containing DNA and RNA molecules
Scanned Photograph of the Equipment (Front View)	
	

Details of Equipment acquired under FIST Program

<u>Name of the Equipment</u>	Digital Balance
Model Number	PGB200
Complete Specification	Up to 200gm, Accuracy: 0.001(1mg) with rechargeable battery RS 232C
Details of Manufacturer	
Name	Wensar
Address	K 4/1298 Link road , SahyogNagar, Andheri West
City	Mumbai
PIN	400053
State	Maharashtra
Phone	09004608283
Fax	-
Email	salex@ecreativeiindia.com
Details of Local Agent / Supplier	
Name	Arun and Sons
Address	D-243 Minal Residency
City	Bhopal
PIN	462023
State	M.P.
Phone	9993952868
Fax	0755-4203002
Email	arunandsons@gmail.com
Actual Cost (in Foreign	-

Actual Cost (in Indian Rupees)	Rs. 18876.12
Used for	Weighing various chemicals for media, reagents and buffer
Scanned Photograph of the Equipment (Front View)	
	

Details of Equipment acquired under FIST Program Department of Chemistry

<u>Name of the Equipment</u>	Millipore water purification System
Model Number	DQ3
Complete Specification	High quality ultra pure water with UV lamp (185/254nm) for preparation of solution required for sophisticated instruments. Flow rate=3L/hr at 25 C
Details of Manufacturer	
Name	Merck India Head Office
Address	GODREJ One, 8 th floor, Pirojshanagar Eastern Express Highway Vikroli
City	Mumbai
PIN	400079
State	Maharashtra
Phone	+912262109800
Fax	+912262109999
Email	nikita.rishi@external.merckgroup.com
Details of Local Agent/Supplier	
Name	Sumeet Enterprises
Address	103, Malviya Nagar, Bhopal
City	Bhopal
PIN	462003
State	M.P.
Phone	9827098426

Fax	91-0755-2675730
Email	sumeetenterprises@gmail.com
Actual cost (in Foreign Exchange)	8137.24USD
Actual cost (in Indian Rupees)	6,07,383/-Rs
Used for	For ultrapure water for synthesis and solution preparation

Scanned Photograph of the Equipment (front view)



Details of Equipment acquired under FIST Program

<u>Name of the Equipment</u>	Clevenger Apparatus
Model Number	-
Complete Specification	Capacity 1000 ml with heating mantle with stand and clamp.
Details of Manufacturer	
Name	Borosil Co.
Address	1101, Crescenzo, G-Block, Opp. MCA Club, Bandra Kurla Complex, Bandra (East)
City	Mumbai
PIN	400051
State	Maharashtra
Phone	02267406300
Fax	-
Email	www.borosil.com
Details of Local Agent/Supplier	
Name	Newtech Inst.
Address	Shop No.M-2, chitra complex,178,zone-1,M.P. Nagar,Bhopal-11
City	Bhopal
PIN	462011
State	M.P.
Phone	9827098426
Fax	-
Email	newtechinstruments2012@gmail.com
Actual cost (in Foreign Exchange)	126.59USD
Actual cost (in Indian Rupees)	9,450/- Rs.
Used for	Extraction of oil
Scanned Photograph of the Equipment (front view)	



Details of Equipment acquired under FIST Program

<u>Name of the Equipment</u>	Binary HPLC System with Software SYS
Model Number	LC 138(B)
Complete Specification	Solvent delivery Pump (2 nos.), UV-VIS Detector, Injection Port, Inbuilt Solvent Tray, Gradient Mixture, Chromatography Workstation VI2010 Accessories-C18 Column for HPLC, ULTRASONIC BATH (SONICATOR) (3.5 ltr.), Solvent Filtration Kit, Sample filtration Kit, PC and Printer
Details of Manufacturer	
Name	Systronics
Address	B/116-129,Supath-II Complex, Near Juna Wadaj Bus Terminus,Ashram Road
City	Ahmadabad
PIN	380013
State	Gujarat
Phone	27557072,27553589
Fax	-
Email	sysbpl@systronicsindia.com
Details of Local Agent/Supplier	
Name	Systronics (India) Ltd.
Address	262,1st Floor, Major Shopping Centre Opp. Hotel Tulsi Exotic, Zone-II, M.P. Nagar
City	Bhopal
PIN	462011
State	M.P
Phone	0755-2555343
Fax	0755-2555411
Email	sysbpl@systronicsindia.com
Actual cost (in Foreign Exchange)	13362.59USD
Actual cost (in Indian Rupees)	9,97,500/-Rs.

Used for


For quantitative estimation of organic functional groups

Scanned Photograph of the Equipment (front view)



Details of Equipment acquired under FIST Program

<u>Name of the Equipment</u>	Synthesis Microwave reactor Monowave -200
Model Number	Monowave -200, Serial No. 81919710
Complete Specification	Temperature- 300 C and pressure - 30 bar can be reached. 3 borosilicate glass vials (2 ml - 20 ml capacity), Reusable snap cap magnet. Unique silicon carbide vial for new method development.
Details of Manufacturer	
Name	Anton Paar GmbH
Address	Anton Paar GmbH, Anton-paar-strasse 20,
City	Graz
PIN	8054
State	Austria
Phone	-
Fax	-
Email	info.in@anton-paar.com
Details of Local Agent/Supplier	
Name	Anton Paar India Pvt. Ltd.
Address	Udyog 582, Phase V, Vihar, Industrial Area
City	Gurugram
PIN	122016
State	Haryana
Phone	+911244932800
Fax	+911244932866
Email	info.in@anton-paar.com
Actual cost (in Foreign Exchange)	12,270.20USD
Actual cost (in Indian Rupees)	916000/- Rs.

Used for	Used for synthesis method development and optimization, provides rapid uniform heating with immersing temperature sensing system along with real time pressure reading.
Scanned Photograph of the Equipment (front view)	
	

Details of Equipment acquired under FIST Program

<u>Name of the Equipment</u>	High Precision Digital Melting Point Apparatus
Model Number	SE-174
Complete Specification	Use of C-MOS LSI technology. Digital display with automatic polarity indication and decimal positioning. In built magnetic stirrer keeps uniform temperature.
Details of Manufacturer	
Name	Sciencetech Instruments
Address	59B-UA, Jawahar Nagar, Near Kamla Nagar, Delhi-110007
City	Delhi
PIN	110007
State	Delhi
Phone	9811014850
Fax	-
Email	sciencecenterprise@gmail.com
Details of Local Agent/Supplier	
Name	Sumeet Enterprises
Address	103, Malviya Nagar, Bhopal
City	Bhopal
PIN	462003
State	M.P.
Phone	9827098426
Fax	91-0755-2675730
Email	sumeetenterprises@gmail.com
Actual cost (in Foreign Exchange)	722.01USD
Actual cost (in Indian Rupees)	53,900/- Rs.
Used for	Determination of Melting Point

Scanned Photograph of the Equipment (front view)



Details of Equipment acquired under FIST Program

<u>Name of the Equipment</u>	High Precision Water bath 430 X 240 X 245mm
Model Number	SE-135
Complete Specification	Desired temperature digital controller with red indicator, chamber size=430X240X265 mm with approximate 27L capacity with stirring arrangement.
Details of Manufacturer	
Name	Sciencetech Instruments
Address	59B-UA, Jawahar Nagar, Near Kamla Nagar, Delhi-110007
City	Delhi
PIN	110007
State	Delhi
Phone	9811014850
Fax	-
Email	sciencecenterprise@gmail.com
Details of Local Agent/Supplier	
Name	Sumeet Enterprises
Address	103 Malviya Nagar, Bhopal
City	Bhopal
PIN	462003
State	M.P.
Phone	9827098426
Fax	91-0755-2675730
Email	Sumeetenterprises2gmail.com
Actual cost (in Foreign Exchange)	521.68USD
Actual cost (in Indian Rupees)	38,950/-Rs.

Used for	For evaporation and heating under controlled condition
Scanned Photograph of the Equipment (front view)	
	

Details of Equipment acquired under FIST Program

Name of the Equipment	Vacuum – cum pressure pump Diaphragm type cap.
Model Number	SE-173
Complete Specification	Soundless, beltless and oil free pump.
Details of Manufacturer	
Name	Sciencetech Instruments
Address	59B-UA, Jawahar Nagar, Near Kamla Nagar, Delhi-110007
City	Delhi
PIN	110007
State	Delhi
Phone	9811014850
Fax	-
Email	sciencecenterprise@gmail.com
Details of Local Agent/Supplier	
Name	Sumeet Enterprises
Address	103 Malviya Nagar, Bhopal
City	Bhopal
PIN	462003
State	M.P
Phone	9827098426
Fax	91-0755-2675730
Email	sumeetenterprises@gmail.com
Actual cost (in Foreign Exchange)	254.14\$(USD)
Actual cost (in Indian Rupees)	18,975/-
Used for	Used for filtration under vacuum using glass crucible.

Scanned Photograph of the Equipment (front view)

