NATIONAL BOARD OF ACCREDITATION

Data Capturing Points of the Program Applied for NBA Accreditation– Tier I/II UG (Engineering) Institute Programs

Program Name : Fire Technology and Safety	**Discipline**: Engineering & Technology
Level : Under Graduate	**Tier**: 1
Application No: 10975	**Date of Submission**: 03-09-2025

PART A- Profile of the Institute

A1.Name of the Institute: IPS Academy, Institute of Engineering and Science, Indore, M.P.	
Year of Establishment : 1999	Location of the Institute: KNOWLEDGE VILLAGE RAJENDRA NAGAR A B ROAD INDORE
A2. Institute Address:INSTITUTE OF ENGINEERING AND SCIENCE, IPS ACADEMY, KNOWLEDGE VILLAGE, RAJENDRA NAGAR, A. B. ROAD, INDORE. (MP) PIN CODE- 452012	
City:Indore	State:Madhya Pradesh
Pin Code:452012	Website:www.ies.ipsacademy.org
Email:director.ies@ipsacademy.org	Phone No(with STD Code):0731-4014601
A3. Name and Address of the Affiliating University (if any):	
Name of the University :	City: Bhopal
State : Madhya Pradesh	Pin Code: 462033
A4. Type of the Institution: Self-Supported Institute	
A5. Ownership Status: Self financing	

A6. Details of all Programs being Offered by the Institution:

- No. of UG programs: **14**
- No. of PG programs: **7**

Table No. A6.1: List of all programs offered by the Institute.

Sr.No.	Discipline	Level of program	Name of the program	Year of Start	Year of Closed	Name of The Department
1	Engineering & Technology	UG	Agricultural Engineering	2022	2025	Agricultural Engineering
2	Engineering & Technology	UG	Artificial Intelligence and Machine Learning	2021	2022	Artificial Intelligence and Machine Learning
3	Engineering & Technology	UG	Chemical Engineering	2004	--	Chemical Engineering
4	Engineering & Technology	PG	Chemical Engineering	2011	--	Chemical Engineering
5	Engineering & Technology	UG	Civil Engineering	2004	--	Civil Engineering
6	Engineering & Technology	UG	Computer Science & Information Technology	2018	--	Computer Science and Information Technology
7	Engineering & Technology	UG	Computer Science and Engineering	1999	--	Computer Science and Engineering
8	Engineering & Technology	UG	Computer Science and Engineering (Artificial Intelligence & Machine Learning)	2021	--	Computer Science and Engineering (Artificial Intelligence and Machine Learning)
9	Engineering & Technology	UG	Computer Science and Engineering (Data Science)	2020	--	Computer Science and Engineering (Data Science)

10	Engineering & Technology	UG	Computer Science and Engineering (Internet of Things and Cyber Security including Blockchain Technology)	2022	--	Computer Science and Engineering (Internet of Things and Cyber Security including Blockchain Technology)
11	Engineering & Technology	UG	Computer Science and Engineering (Internet of Things)	2020	--	Computer Science and Engineering (Internet of Things)
12	Engineering & Technology	PG	Construction & Project Management	2013	--	Civil Engineering
13	Engineering & Technology	PG	Data Science	2007	--	Computer Science and Engineering (Data Science)
14	Engineering & Technology	PG	Digital Communications Engineering	2007	--	Electronics and Communication Engineering
15	Engineering & Technology	UG	Electrical & Electronics Engineering	2003	--	Electrical and Electronics Engineering
16	Engineering & Technology	UG	Electronics & Communication Engineering	1999	--	Electronics and Communication Engineering
17	Engineering & Technology	UG	Fire Technology and Safety	1999	--	Fire Technology and Safety
18	Engineering & Technology	PG	Industrial Safety Engineering	2010	--	Fire Technology and Safety
19	Engineering & Technology	UG	Mechanical Engineering	2013	--	Mechanical Engineering
20	Engineering & Technology	PG	Power Electronics	2013	--	Electrical and Electronics Engineering
21	Engineering & Technology	PG	Structural Engineering	2009	--	Civil Engineering

A7. Programs to be considered for Accreditation vide this Application:

Table No. A7.1: List of programs to be considered for accreditation.

Name of the Department	Having Allied Departments	Name of the Program	Program Level
Fire Technology and Safety	No	Fire Technology and Safety	UG
Electrical and Electronics Engineering	No	Electrical & Electronics Engineering	UG
Mechanical Engineering	No	Mechanical Engineering	UG
Electronics and Communication Engineering	No	Electronics & Communication Engineering	UG
Chemical Engineering	No	Chemical Engineering	UG

Table No. A7.2: Allied Department(s) to the Department of the program considered for accreditation as above.
Cluster ID. Name of the Department (in table no. A7.1) Name of allied Departments/Cluster (for table no. A7.1)

No Record

PART-B: Program information

B1. Provide the Required Information for the Program Applied For:

Table No. B1: Program details.
A. List of the Programs Offered by the Department:

SR.NO.	PROGRAM NAME	PROGRAM APPLIED LEVEL	YEAR OF START / YEAR OF CLOSED	SANCTIONED INTAKE	INCREASE/DECREASE INTAKE (if any)	YEAR OF INCREASE/DECREASE	CURRENT INTAKE	YEAR OF AICTE APPROVAL	AICTE/COMPETENT AUTHORITY ARROVAL DETAILS	ACCREDITATION STATUS	FROM	TO	NO. OF TIMES PROGRAM ACCREDITED	PROGRAM DURATION
1	Fire Technology and Safety	UG	1999 / --	60	Yes	2024	120	2024	AICTE	Granted accreditation for 3 years for the period (specify period)	2019	2025	2	4

Sanctioned Intake for Last Five Years for the Fire Technology and Safety	
Academic Year	**Sanctioned Intake**
2024-25	120
2023-24	90
2022-23	120
2021-22	180
2020-21	180
2019-20	180

List of the Allied Departments/Cluster and Programs:

B2. Detail of Head of the Department for the program under consideration:

A. Name of the HoD :	Dr. Praveen Patel
B. Nature of appointment:	Regular
C. Qualification:	Ph.D

B3. Program Details

Table No.B3.1: Admission details for the program excluding those admitted through multiple entry and exit points.

Item (Information to be provided cumulatively for all the shifts with explicit headings, wherever applicable)	2024-25 (CAY)	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)	2020-21 (CAYm4)	2019-20 (CAYm5)	2018-19 (CAYm6)
N=Sanctioned intake of the program (as per AICTE /Competent authority)	120	90	120	180	180	180	120
N1=Total no. of students admitted in the 1st year minus the no. of students, who migrated to other programs/ institutions plus no. of students, who migrated to this program	123	88	44	69	83	151	108
N2=Number of students admitted in 2nd year in the same batch via lateral entry including leftover seats	0	9	10	6	10	7	12
N3=Separate division if any	0	0	0	0	0	0	0
N4=Total no. of students admitted in the 1st year via all supernumerary quotas	31	12	10	17	23	28	18
Total number of students admitted in the program (N1 + N2 + N3 + N4) - excluding those admitted through multiple entry and exit points.	154	109	64	92	116	186	138

CAY= Current Academic Year. CAYm1= Current Academic Year Minus 1 CAYm2= Current Academic Year Minus 2. LYG= Last Year Graduate. LYGm1= Last Year Graduate Minus 1. LYGm2= Last Year Graduate Minus 2.

B4. Enrolment Ratio in the First Year

Table No. B4.1: Student enrolment ratio in the 1st year.

Year of entry	N (From Table 4.1)	N1 (From Table 4.1)	N4 (From Table 4.1)	Enrollment Ratio [(N1/N)*100]
2024-25 (CAY)	120	123	31	128.33
2023-24 (CAYm1)	90	88	12	111.11
2022-23 (CAYm2)	120	44	10	45.00

Average [(ER1 + ER2 + ER3) / 3] = 94.81≡ 20.00

B5. Success Rate of the Students in the Stipulated Period of the Program

Table No.B5.1: The success rate in the stipulated period of a program.

Item	(2020-21) LYG	(2019-20) LYGm1	(2018-19) LYGm2
A*= (No. of students admitted in the 1st year of that batch and those actually admitted in the 2nd year via lateral entry, plus the number of students admitted through multiple entry (if any) and separate division if applicable, minus the number of students who exited through multiple entry (if any).	190.00	187.00	138.00
B=No. of students who graduated from the program in the stipulated course duration	108.00	177.00	131.00

Average SR of three batches ((SR_1+ SR_2+ SR_3)/3): 82.14

B6. Academic Performance of the First-Year Students of the Program

Table No.B6.1: Academic Performance of the First-Year Students of the Program.

Academic Performance	CAYm1(2023-24)	CAYm2(2022-23)	CAYm3 (2021-22)
Mean of CGPA or mean percentage of all successful students(X)	7.10	7.36	6.57
Y=Total no. of successful students	95.00	54.00	86.00
Z=Total no. of students appeared in the examination	103.00	61.00	87.00
API [X*(Y/Z)]	6.55	6.52	6.49

Average API[(AP1+AP2+AP3)/3] : 6.52

B7: Academic Performance of the Second Year Students of the Program

Table No.B7.1: Academic Performance of the Second Year Students of the Program.

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
X=(Mean of 2nd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 2rd year/10)	7.14	6.61	8.17
Y=Total no. of successful students	64.00	88.00	112.00
Z=Total no. of students appeared in the examination	64.00	92.00	114.00
API [X * (Y/Z)]	7.03	6.33	8.03

Average API [(AP1 + AP2 + AP3)/3] : 7.13

B8. Academic Performance of the Third Year Students of the Program

Table No.B8.1: Academic Performance of the Third Year Students of the Program

Academic Performance	CAYm1 (2023-24)	CAYm2 (2022-23)	CAYm3 (2021-22)
X=(Mean of 3rd year grade point average of all successful students on a 10-point scale) or (Mean of the percentage of marks of all successful students in 3rd year/10)	6.80	7.75	7.86
Y=Total no. of successful students	88.00	110.00	177.00
Z=Total no. of students appeared in the examination	88.00	112.00	178.00
API [X*(Y/Z)]:	6.89	7.57	7.81

Average API [(AP1 + AP2 + AP3)/3] : 7.42

B9. Placement, Higher Studies, and Entrepreneurship

Table No.B9.1: Placement, higher studies, and entrepreneurship details.

Item	LYG (2020-21)	LYGm1(2019-20)	LYGm2(2018-19)
FS*=Total no. of final year students	190.00	187.00	132.00
X=No. of students placed	103.00	168.00	121.00
Y=No. of students admitted to higher studies	0.00	0.00	1.00
Z= No. of students taking up entrepreneurship	0.00	0.00	0.00
Placement Index(P) = (((X + Y + Z)/FS) * 100):	54.21	89.84	92.42

Average Placement Index = (P_1 + P_2 + P_3)/3: 78.82 Placement Index Points:

PART C: Faculty Details in Department and Allied Departments

(Data to be filled in for the Department and Allied Departments)

C1. Faculty details of Department and Allied Departments

Table No.C1: Faculty details in the Department for the past 3 years including CAY

Sr.No	Name of the Faculty	PAN No.	Highest degree	University	Area of Specialization	Date of Joining in this Institution	Experience in years in current institute	Designation at Time Joining in this Institution	Present Designation	The date on which Designated as Professor/ Associate Professor if any	Nature of Association (Regular/ Contract/ Ad hoc)	Currently Associated (Y/N)	In case of NO, Date of Leaving	IS HOD?
1	Dr. Praveen Patel	XXXXXXX46A	Ph.D	Suresh Gyan Vihar	Fire Technology& Safety Engineering	02/08/2004	21.1	Assistant Professor	Professor	01/02/2019	Regular	Yes		Yes
2	Dr. Aditya Tiwary	XXXXXXX33H	Ph.D	RGPV, Bhopal	Electrical Engineering	16/08/2017	8	Assistant Professor	Associate Professor	24/07/2023	Regular	Yes		No
3	Dr.Sumit Bhatiya	XXXXXXX77D	Ph.D	DAVV Indore	Chemical Safety & Industrial Hygiene	12/09/2016	8.11	Assistant Professor	Professor	24/07/2023	Regular	Yes		No
4	Dr. Sanjay Jain	XXXXXXX19H	Ph.D	DAVV Indore	Laser Science & Application	01/09/2018	7	Assistant Professor	Associate Professor	24/07/2023	Regular	Yes		No
5	Dr.Manish Dubey	XXXXXXX28D	Ph.D	Oriental University Indore	Fire Technology& Safety Engineering	16/06/2014	11.2	Assistant Professor	Associate Professor	11/06/2025	Regular	Yes		No
6	Mr.Praveen Badodia	XXXXXXX19E	M.Tech	RGPV, Bhopal	Environmental Management	04/03/2011	14.6	Assistant Professor	Assistant Professor		Regular	Yes		No
7	Mr.Vineet Banodha	XXXXXXX17L	M.Tech	RGPV, Bhopal	Fire Technology& Safety Engineering	17/08/2010	15	Assistant Professor	Assistant Professor		Regular	Yes		No
8	Mr. Veerendra Suryawanshi	XXXXXXX27D	M.Tech	RGPV, Bhopal	Industrial Safety Engineering	01/01/2013	12.8	Assistant Professor	Assistant Professor		Regular	Yes		No
9	Mr. Yashwant Buke	XXXXXXX20R	M.Tech	RGPV, Bhopal	Industrial Safety Engineering	08/10/2010	14.10	Assistant Professor	Assistant Professor		Regular	Yes		No

10	Mr.Aashish Yadav	XXXXXXX90M	M.Tech	RGPV, Bhopal	Fire Technology& Safety Engineering	01/05/2012	13.4	Assistant Professor	Assistant Professor		Regular	Yes		No
11	Mr. Vijay Shankul	XXXXXXX71A	M.E.	RGPV, Bhopal	Industrial Safety Engineering	13/03/2013	12.5	Assistant Professor	Assistant Professor		Regular	Yes		No
12	Ms. Shalini Bhardwaj	XXXXXXX00C	M.E.	RGPV, Bhopal	Industrial Safety Engineering	08/08/2012	13	Assistant Professor	Assistant Professor		Regular	Yes		No
13	Mr.Vijay Kahar	XXXXXXX64K	M.E.	RGPV, Bhopal	Chemical Hazardous Material Safety	01/08/2013	12.1	Assistant Professor	Assistant Professor		Regular	Yes		No
14	Mr.SourabhJain	XXXXXXX17D	M.E.	RGPV, Bhopal	Electrical Engineering	04/12/2017	7.9	Assistant Professor	Assistant Professor		Regular	Yes		No
15	Mr. Gourav Anthony	XXXXXXX43J	M.Tech	DAVV Indore	Disaster Management	01/08/2018	7.1	Assistant Professor	Assistant Professor		Regular	Yes		No
16	Mr. Hemendra Patil	XXXXXXX21K	M.Tech	MANIT Bhopal	Industrial Safety Engineering	22/08/2018	7	Assistant Professor	Assistant Professor		Regular	Yes		No
17	Mr.Ramjee Singh Prajapati	XXXXXXX86H	M.Tech	RGPV, Bhopal	Thermal Engineering	22/08/2018	7	Assistant Professor	Assistant Professor		Regular	Yes		No
18	Mr.Aamir Shaikh	XXXXXXX86F	M.Tech		Fire Technology& Safety Engineering	08/10/2021	3.10	Assistant Professor	Assistant Professor		Regular	Yes		No
19	Mr. Mustakim Khan	XXXXXXX26D	M.Tech	RGPV, Bhopal	Fire Technology& Safety Engineering	02/08/2021	4.1	Assistant Professor	Assistant Professor		Regular	Yes		No
20	Mr. Praveen Tatod	XXXXXXX83F	M.Tech	RGPV, Bhopal	Industrial Safety Engineering	08/08/2019	6	Assistant Professor	Assistant Professor		Regular	Yes		No
21	Ms Ritu Gaur	XXXXXXX30M	M.Tech	RGPV, Bhopal	Environmental Management	31/07/2017	8.1	Assistant Professor	Assistant Professor		Regular	Yes		No
22	Dr. S.N. Varma	XXXXXXX39G	Ph.D	IIT, Bombay	Nuclear Safety	04/01/2016	9.5	Professor	Professor	04/01/2016	Regular	No	03/06/2025	No
23	Mr. Diwakar Singh	XXXXXXX16A	M.E.	RGPV, Bhopal	Transportation Engineering	21/07/2014	11.1	Assistant Professor	Assistant Professor		Regular	Yes		No
24	Mr. Apoorv Sharda	XXXXXXX25H	M.Tech	RGPV, Bhopal	Structural Engineering	31/07/2013	12.1	Assistant Professor	Assistant Professor		Regular	Yes		No
25	Mr Parakh Dongre	XXXXXXX64B	M.E.	RGPV, Bhopal	Transportation Engineering	01/07/2022	3.2	Assistant Professor	Assistant Professor		Regular	Yes		No
26	Mr Kamal Shukla	XXXXXXX06F	M.Tech	RGPV, Bhopal	Fire Technology& Safety Engineering	08/08/2019	5.10	Assistant Professor	Assistant Professor		Regular	No	20/06/2025	No
27	Ms Shahnam Baig	XXXXXXX41H	M.Tech	RGPV, Bhopal	Power Electronics	12/07/2016	9.1	Assistant Professor	Assistant Professor		Regular	Yes		No

28	Mr Paranjay Najan	XXXXXXX82A	M.Tech	RGPV, Bhopal	Fire Technology& Safety Engineering	01/07/2022	3.2	Assistant Professor	Assistant Professor		Regular	Yes		No
29	Mr Abhishek Samvatsar	XXXXXXX60F	M.Tech	RGPV, Bhopal	Fire Technology& Safety Engineering	04/08/2015	9.10	Assistant Professor	Assistant Professor		Regular	No	20/06/2025	No

Table No.C2: Faculty details of Allied Departments for the past 3 years including CAY.

C2. Student-Faculty Ratio (SFR)

No. of UG(Engineering) programs in Department including allied departments/ clusters (UGn):
UG1=1st UG program
UGn=nth UG program
B= No. of Students in UG 2nd year (ST)
C= No. of Students in UG 3rd year (ST)
D= No. of Students in UG 4th year (ST)
No. of PG (Engineering) programs in Department including allied departments/ clusters (PGm):
PG1=1st PG program.
PGm=mth PG program
A= No. of Students in PG 1st year
B= No. of Students in PG 2nd year
Student Faculty Ratio **(SFR)** = S/F
S= No. of students of all programs in the Department including all students of allied departments/clusters.
No. of students (ST)=Sanctioned Intake (SA)+ Actual admitted students via lateral entry including leftover seats (L) if any (limited to 10 % of SA)
Students who admitted under supernumerary quotas (SNQ, EWS, etc) will not be considered in calculating SFR value. Those students are exempted.
F=Total no. of regular or contractual faculty members (Full Time) in the Department, including allied departments/clusters (excluding first year faculty (The faculty members who have a 100% teaching load in the first-year courses)).

No. of UG Programs in the Department1 No. of PG Programs in the Department1

Table No.C2.1: Student-faculty ratio.

Description	**CAY(2024-25)**	**CAYm1 (2023-24)**	**CAYm2 (2022-23)**
UG1.B	99	130	186
UG1.C	130	186	190
UG1.D	186	190	187
UG1: Fire Technology and Safety	**415**	**506**	**563**
PG1.A	18	18	18
PG1.B	18	18	18
PG1: Industrial Safety Engineering	**36**	**36**	**36**
DS=Total no. of students in all UG and PG programs in the Department	451	542	599
AS=Total no. of students of all UG and PG programs in allied departments	0	0	0
S=Total no. of students in the Department (DS) and allied departments (AS)	**S1=** 451	**S2=** 542	**S3=** 599
DF=Total no. of faculty members in the Department	29	29	29
AF= Total no. of faculty members in the allied Departments	0	0	0
F=Total no. of faculty members in the Department (DF) and allied Departments (AF)	**F1=** 29	**F2=** 29	**F3=** 29
FF=The faculty members in F who have a 100% teaching load in the first-year courses	0	0	0
Student Faculty Ratio (SFR)=S/(F-FF)	**SFR1= 15.55**	**SFR2= 18.69**	**SFR3= 20.66**
Average SFR for 3 years	**SFR= 18.30**		

C3. Faculty Qualification

- Faculty qualification index (FQI) = 2.5 * [(10X +4Y)/RF] where
- X=No. of faculty members with Ph.D. degree or equivalent as per AICTE/UGC norms.
- Y=No. of faculty members with M. Tech. or ME degree or equivalent as per AICTE/ UGC norms.
- RF=No. of required faculty in the Department including allied Departments to adhere to the 20:1 Student-Faculty ratio, with calculations based on both student numbers and faculty requirements as per section C2 of this documents: (RF=S/20).

Table No.C3.1: Faculty qualification.

Year	X	Y	RF	FQ = 2.5 x [(10X + 4Y) / RF)]
2024-25(CAY)	5	24	22.00	16.59
2023-24(CAYm1)	5	24	27.00	13.52
2022-23(CAYm2)	5	24	29.00	12.59

C4. Faculty Cadre Proportion

- Faculty Cadre Proportion is 1(RF1): 2(RF2): 6(RF3)
- RF1= No. of Professors required = 1/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per C2 of this documents:.
- RF2= No. of Associate Professors required = 2/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents:.
- RF3= No. of Assistant Professors required = 6/9 * No. of Faculty required to comply with 20:1 Student-Faculty ratio based on no. of students (S) as per section C2 of this documents:.
- Faculty cadre and qualification and experience should be as per AICTE/UGC norms.

Table No.C4.1: Faculty cadre proportion details.

Year	Professors		Associate Professors		Assistant Professors	
	Required RF1	Available AF1	Required RF2	Available AF1	Required RF3	Available AF3
2024-25	2.00	3.00	5.00	2.00	15.00	24.00
2023-24	3.00	3.00	6.00	2.00	18.00	24.00
2022-23	3.00	2.00	6.00	1.00	19.00	26.00
Average	RF1=2.67	AF1=2.67	RF2=5.67	AF2=1.67	RF2=17.33	AF2=24.67

C5. Visiting/Adjunct Faculty/Professor of Practice

Table No. C5.1: List of visiting/adjunct faculty/professor of practice and their teaching and practical loads.

(CAYm1)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Col. (Dr) Virendra Mishra	Professor of Practice	IPS Academy-IES	Field Training in Rescue Operations & Disaster Management	54.00

(CAYm2)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Col. (Dr) Virendra Mishra	Professor of Practice	IPS Academy-IES	Field Training in Rescue Operations & Disaster Management	56.00

(CAYm3)

S.No	Name of the Person	Designation	Organization	Name of the Course	No. of hours handled
1	Col. (Dr) Virendra Mishra	Professor of Practice	IPS Academy-IES	Field Training in Rescue Operations & Disaster Management	52.00

C6. Academic Research

Table No. C6.1: Faculty publication details.

S.No.	Item	2023-24 (CAYm1)	2022-23 (CAYm2)	2021-22 (CAYm3)
1	No. of peer reviewed journal papers published	13	23	50
2	No. of peer reviewed conference papers published	35	0	0
3	No. of books/book chapters published	0	3	2

C7. Sponsored Research Project

Table No. C7.1: List of sponsored research projects received from external agencies.

(CAYm1)

(CAYm2)

(CAYm3)

Total Amount (Lacs) Received for the Past 3 Years: NIL

Note*:

- Only sponsored research projects will be considered. Infrastructure-based projects will not be considered here.

C8. Consultancy Work

Table No. C8.1: List of consultancy projects received from external agencies.

(CAYm1)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS ACADEMY (Main Campus)	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	7170.00
Mr. Vineet Banodha	Mr. Ashish Yadav	College of IBMR & Architecture	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	13539.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS School Section (Primary & Senior Block)	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	11850.00
Mr. Vineet Banodha	Mr. Ashish Yadav	Central Building	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	14743.00
Mr. Vineet Banodha	Mr. Ashish Yadav	College of Fine Arts	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	5202.00
Mr. Vineet Banodha	Mr. Ashish Yadav	College of Pharmacy	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	7850.00
Mr. Ashish Yadav	Mr. Mustakim Khan	IPS Hostel Boys & Girls	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	12450.00
Mr. Ashish Yadav	Mr. Mustakim Khan	Institute Of Engineering and Science (Old Building)	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	11060.00
Mr. Ashish Yadav	Mr. Mustakim Khan	IPS Security Main Gate	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	600.00
Mr. Ashish Yadav	Mr. Mustakim Khan	IPS Transport Department	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	6500.00
Mr. Ashish Yadav	Mr. Mustakim Khan	Institute Of Engineering and Science (New Building)	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	35781.00
Mr. Ashish Yadav	Mr. Mustakim Khan	IPS Academy Placement Cell	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	1200.00
Mr. Ashish Yadav	Mr. Mustakim Khan	The School of Computers (SOC)	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	830.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS IT Unit Central Building	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	540.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS School Jhabua Campus	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	32533.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPSA Sanwer Campus	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	21585.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS School Eastern Campus	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	35200.00
Mr. Vineet Banodha	Mr. Ashish Yadav	Store	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1year	7485.00
Mr. Ashish Yadav	Mr. Mustakim Khan	Institute Of Engineering and Science (Off Campus)	Purchas & Instalation of New Extinguisher	IPS ACADEMY	One Time	10835.00
Dr. Praveen Patel	Mr. Vineet Banodha	IES IPS ACADEMY (New Building)	Fire Fighting Installation (Maintenance)	IPS ACADEMY	1year	30000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IES IPS ACADEMY (New Building)	Fire & Safety Audit Report	IPS ACADEMY	1year	55000.00
Dr. Praveen Patel	Mr. Mustakim Khan	IES IPS ACADEMY (Old Building)	Fire Fighting Installation (Maintenance)	IPS ACADEMY	1year	30000.00
Dr. Praveen Patel	Mr. Mustakim Khan	IES IPS ACADEMY (Old Building)	Fire & Safety Audit Report	IPS ACADEMY	1year	55000.00
Dr. Praveen Patel	Mr. Ashish Yadav	ION Digital Center	Fire Fighting Installation (Maintenance)	IPS ACADEMY	1year	30000.00
Dr. Praveen Patel	Mr. Ashish Yadav	ION Digital Center	Fire & Safety Audit Report	IPS ACADEMY	1year	55000.00
Dr. Praveen Patel	Mr. Manish Dubey	College of IBMR & Architecture	Fire Fighting Installation (Maintenance)	IPS ACADEMY	1year	30000.00
Dr. Praveen Patel	Mr. Manish Dubey	College of IBMR & Architecture	Fire & Safety Audit Report	IPS ACADEMY	1year	55000.00
Dr. Praveen Patel	Mr. Manish Dubey	IPS School Eastern Campus (Moriya Hills)	Fire & Safety Audit Report	IPS ACADEMY	1year	55000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IPS School Jhabua Campus	Fire & Safety Audit Report	IPS ACADEMY	1year	55000.00
						Amount received (Rs.):686953.00

(CAYm2)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Praveen Patel	Mr. Vineet Banodha	IES IPS ACADEMY (New Building)	Fire Fighting Installation (Maintenance)	IPS ACADEMY	1 Year	30000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IES IPS ACADEMY (New Building)	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Mustakim Khan	IES IPS ACADEMY (Old Building)	Fire Fighting Installation (Maintenance)	IPS ACADEMY	1 Year	30000.00
Dr. Praveen Patel	Mr. Mustakim Khan	IES IPS ACADEMY (Old Building)	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Ashish Yadav	ION Digital Center	Fire Fighting Installation (Maintenance)	IPS ACADEMY	1 Year	30000.00
Dr. Praveen Patel	Mr. Ashish Yadav	ION Digital Center	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Manish Dubey	College of IBMR & Architecture	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Manish Dubey	College of IBMR & Architecture	Fire Fighting Installation (Maintenance)	IPS ACADEMY	1 Year	30000.00
Dr. Praveen Patel	Mr. Manish Dubey	IPS School Eastern Campus (Moriya Hills)	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IPS School Jhabua Campus	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS IT Unit Central Building	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	793.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS School Jhabua Campus	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	31465.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPSA Sanwer Campus	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	22500.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS Academy Placement Cell	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	1200.00
Mr. Vineet Banodha	Mr. Ashish Yadav	The School of Computers (SOC)	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	940.00
Mr. Vineet Banodha	Mr. Ashish Yadav	Store	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	7961.00
Mr. Vineet Banodha	Mr. Ashish Yadav	Institute Of Engineering and Science (New Building)	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	33068.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS Security Main Gate	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	700.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS Transport Department	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	6351.00
						Amount received (Rs.):554978.00

(CAYm3)

PI Name	Co-PI names if any	Name of the Dept., where project is sanctioned	Project Title*	Name of the Funding agency	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25
Dr. Praveen Patel	Mr. Manish Dubey	IPS School Eastern Campus (Moriya Hills)	Approval of Fire Plan	IPS ACADEMY	One Time	55000.00
Dr. Praveen Patel	Mr. Manish Dubey	IPS School Eastern Campus (Moriya Hills)	Fire Safety Certificate	IPS ACADEMY	3 Years	60000.00
Dr. Praveen Patel	Mr. Manish Dubey	IPS School Eastern Campus (Moriya Hills)	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IPS School Jhabua Campus	Approval of Fire Plan	IPS ACADEMY	One Time	55000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IPS School Jhabua Campus	Fire Safety Certificate	IPS ACADEMY	3 Years	60000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IPS School Jhabua Campus	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Ashish Yadav	IPSA Sanwer Campus	Approval of Fire Plan	IPS ACADEMY	One Time	55000.00
Dr. Praveen Patel	Mr. Ashish Yadav	IPSA Sanwer Campus	Fire Safety Certificate	IPS ACADEMY	3 Years	60000.00
Dr. Praveen Patel	Mr. Ashish Yadav	IPSA Sanwer Campus	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Manish Dubey	College of IBMR & Architecture	Fire Safety Certificate	IPS ACADEMY	3 Years	60000.00
Dr. Praveen Patel	Mr. Manish Dubey	College of IBMR & Architecture	Fire Fighting Installation	IPS ACADEMY	One Time	335700.00
Dr. Praveen Patel	Mr. Manish Dubey	College of IBMR & Architecture	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IES IPS ACADEMY (New Building)	Fire Safety Certificate	IPS ACADEMY	3 Years	60000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IES IPS ACADEMY (New Building)	Fire Fighting Installation	IPS ACADEMY	One Time	314000.00
Dr. Praveen Patel	Mr. Vineet Banodha	IES IPS ACADEMY (New Building)	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Mustakim Khan	IES IPS ACADEMY (Old Building)	Fire Safety Certificate	IPS ACADEMY	3 Years	60000.00
Dr. Praveen Patel	Mr. Mustakim Khan	IES IPS ACADEMY (Old Building)	Fire Fighting Installation	IPS ACADEMY	One Time	340000.00
Dr. Praveen Patel	Mr. Mustakim Khan	IES IPS ACADEMY (Old Building)	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Dr. Praveen Patel	Mr. Ashish Yadav	ION Digital Center	Fire Fighting Installation	IPS ACADEMY	One Time	275000.00
Dr. Praveen Patel	Mr. Ashish Yadav	ION Digital Center	Fire Safety Certificate	IPS ACADEMY	3 Years	60000.00
Dr. Praveen Patel	Mr. Ashish Yadav	ION Digital Center	Fire & Safety Audit Report	IPS ACADEMY	1 Year	55000.00
Mr. Vineet Banodha	Mr. Ashish Yadav	IPS Hostel Boys & Girls	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	9450.00
Mr. Vineet Banodha	Mr. Ashish Yadav	College of Fine Arts	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	500.00
Mr. Vineet Banodha	Mr. Ashish Yadav	College of Pharmacy	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	6850.00
Mr. Vineet Banodha	Mr. Ashish Yadav	Institute Of Engineering and Science (Old Building)	Maintenance & Refilling of Fire Extinguisher	IPS ACADEMY	1 Year	10500.00
						Amount received (Rs.):2262000.00

Total amount (Lacs) received for the past 3 years: 3503931.00

Note*:

- Only consultancy projects will be considered. Infrastructure-based projects will not be considered here.

C9. Institution Seed Money or Internal Research Grant to its Faculty for Research Work

Table No. C9.1: List of faculty members received seed money or internal research grant from the Institution.

(CAYm1)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Dr. Sumit Bhatiya	Multiple agent fire extinguishing media apparatus	6 Months	130000.00	110500.00	Research paper published in international conference and Working Model is available
Mr. Sourabh Jain	Remote Operated Fire Fighter (ROFF)	08 Months	235000.00	219745.00	Prototype is available
			Amount received (Rs.): 365000.00		

(CAYm2)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Mr. Vineet Banodha + Mr. Aashish Yadav	Aqueous film forming apparatus	5 months	137000.00	117590.00	Working Model is available
Mr. Aashish Yadav + Mr. Vineet Banodha	Narrow space fire fighting vehicle	7 Months	185000.00	164520.00	Working Model is available
Mr. Sourabh Jain	Advance-S Electronics Work Permit System	7 Months	150000.00	135452.00	Prototype is available
			Amount received (Rs.): 472000.00		

(CAYm3)

Faculty name	Project title/ Support for Activity	Duration of the project	Amount(Lacs) i.e. 15,25,000=15.25	Amount Utilized(Lacs) i.e. 15,25,000=15.25	Outcomes of the project
Mr. Veerendra Suryawanshi	Peculiar Threat Protection System	6 Months	250000.00	245450.00	Prototype is available
Mr. Gourav Anthony	Fireball launcher for fire behavior simulation and emergency response training	7 Months	200000.00	185200.00	Working Model is available
Mr. Mustakim Khan	Rim Seal Fire Protection System for Storage Tanks	8 Months	240000.00	210150.00	A functional prototype is available
			Amount received (Rs.): 690000.00		

Total amount (Lacs) received for the past 3 years : 1527000.00

PART D: Laboratory Infrastructure in the Department

(Data to be filled in for the Department)

D1. Adequate and Well-Equipped Laboratories, and Technical Manpower

Table No.D1.1: List of laboratories and technical manpower.

Sr. No	Name of the Laboratory	Number of students per set up(Batch Size)	Name of the Important Equipment	Weekly utilization status(all the courses for which the lab is utilized)	Technical Manpower Support		
					Name of the Technical staff	Designation	Qualification
1	INDUSTRIAL HYGIENE & OCCUPATIONAL HEALTH	30	1.Double Beam UV-VIS spectrophotometer 2.Intigrated Sound level meter 3. Spiro meter 4.Ammonia detection	8hrs.	Mr. Rohit Karosiya	Lab Technician	B.E (Mechanical)
2	PARAMEDICS	30	1.Surgical Dressing 2.First Aid Box 3.Hight measuring scale 4.Electrical weight Machine 5.Sphygomano meter	8hrs.	Ms. Shradha Panchal	Lab Technician	M.Sc (Biotechnology)
3	SAFETY ENGINEERING AND ITS INDUSTRIAL APPLICATION	30	1.Electrically operated Overhead crane Model 2. Bucket conveyor belt Model. 3. Conveyor belt Model.	8hrs.	Mr. Satish Mishra	Lab Technician	ITI Machinist Composite
4	FIRE SERVICE EQUIPMENT	30	1.Fire Hose Coupling 2.Foam Making Branch- FB 5X, 3.Foam Making Branch- FB10X 4.Medium Expansion	8hrs.	Mr. Pankaj Chopade	Lab Technician	Diploma in Fire Safety Ma

5	FIRE PREVENTION AND PROTECTIVE MEASURES	30	1.All type of extinguishers 2. Electric Oven-300 C 3. Film Forming Foam Apparatus 4. Digital bomb calorie	8hrs.	Mr. Pankaj Chopade	Lab Technician	Diploma in Fire Safety Ma
6	RESCUE EQUIPMENTS & TECHNIQUES	30	1. Self contained breathing apparatus (SCBA) 2.SCBA-Re-Filling Compressor 3. All type of forcible Entry	8hrs.	Mr. Prashant Kudwe	Lab Technician	ITI Sheet Metal Worker, IT
7	COMPUTER AIDED RISK ANALYSIS LAB	30	1.Computer System 2.Sheel CASA 3.Sheel HAZOP 4.Sheel Explosion 5.ALOHA 6.PHAST 7.Auto CAD	8hrs.	Mr. Rohit Karosiya	Lab Technician	B.E (Mechanical)
8	HEAVY VEHICLES, AUTOMOBILES ENGINEERING & SAFETY	30	1.Radiator and Fins 2.Leaf Spring and Helical Spring. 3.Hydrulic Breaks 4.Pneumatic Breaks 5.Model Fuel	8hrs.	Mr. Satish Mishra	Lab Technician	ITI Machinist Composite
9	FIRE FIGHTING INSTALLATION	30	1. Deluge valve system with bell 2. Sprinklers systems(High ,Medium,Low) 3. Co2 flooding system 4.	8hrs.	Mr. Prashant Kudwe	Lab Technician	ITI Sheet Metal Worker, IT

D2. Safety Measures in Laboratories

Table No. D2.1: List of various safety measures in laboratories.

Sr. No	Laboratory Name	Safety Measures
1	INDUSTRIAL HYGIENE & OCCUPATIONAL HEALTH	A. Basic Safety Measures • Always wear proper Personal Protective Equipment (PPE) – lab coat, gloves, helmet, and safety shoes etc. • Keep fire extinguishers and first aid kits accessible at all times. • Do not smoke, eat, or drink inside laboratories. • Know the location of emergency exits and evacuation routes. • Report all accidents, spills, or unsafe conditions to the faculty/lab in-charge/Lab technician immediately. • Maintain cleanliness and do not block pathways or exits. • Switch off electrical appliances and gas valves after use. • Participate in regular safety drills and follow instructions of faculty/lab in-charge/Lab technician. B. Lab Specific safety Measures • Always wear hearing protection (ear plugs or ear muffs) when measuring noise in high decibel areas. • Use sanitized spirometers with disposable mouthpieces, avoid sick participants, and keep good ventilation. • Work in ventilated/fume hood areas, use gas masks, keep gases away from flames, store cylinders safely. • Ensure the sound level meter is calibrated and handled carefully to avoid inaccurate readings and electrical hazards. • Conduct the test in a soundproof booth to prevent external noise interference and avoid misleading results. • Always wear hearing protection gears (ear plugs or ear muffs) when measuring noise in high decibel areas. •Handle glass impingers, filters, and chemicals carefully to prevent breakage, spills, or exposure to hazardous substances.
2	PARAMEDICS	A. Basic Safety Measures • Always wear proper Personal Protective Equipment (PPE) – lab coat, gloves, helmet, and safety shoes etc. • Keep fire extinguishers and first aid kits accessible at all times. • Do not smoke, eat, or drink inside laboratories. • Know the location of emergency exits and evacuation routes. • Report all accidents, spills, or unsafe conditions to the faculty/lab in-charge/Lab technician immediately. • Maintain cleanliness and do not block pathways or exits. • Switch off electrical appliances and gas valves after use. • Participate in regular safety drills and follow instructions of faculty/lab in-charge/Lab technician. B. Lab Specific safety Measures • BP Machine- Check calibration; disinfect cuffs after use; avoid excessive tightening. • Burns Treatment Area -Keep burn kits, sterile dressings, and cold water supply ready; instruct students not to apply unsafe substances. • Stretchers -Use correct lifting techniques; ensure wheels and straps are in good condition; never overload • Lung Testing Machine - Use disposable mouthpieces; sanitize tubing; ensure machine is calibrated; avoid testing in case of infections. • Measuring Scale- Place on a flat, stable surface; supervise students during use to prevent slips or falls. • CPR Machine / Manikin -Train students in correct technique; sanitize after each use; keep AED (if available) nearby.
3	SAFETY ENGINEERING AND ITS INDUSTRIAL APPLICATION	A. Basic Safety Measures • Always wear proper Personal Protective Equipment (PPE) – lab coat, gloves, helmet, and safety shoes etc. • Keep fire extinguishers and first aid kits accessible at all times. • Do not smoke, eat, or drink inside laboratories. • Know the location of emergency exits and evacuation routes. • Report all accidents, spills, or unsafe conditions to the faculty/lab in-charge/Lab technician immediately. • Maintain cleanliness and do not block pathways or exits. • Switch off electrical appliances and gas valves after use. • Participate in regular safety drills and follow instructions of faculty/lab in-charge/Lab technician. B. Lab Specific safety Measures • Ensure all equipment is inspected and certified for safe use prior to operation. • Never bypass safety interlocks or protective guards of machines. • Maintain proper ergonomics while operating heavy or moving equipment. • Report any malfunction, leakage, or unsafe condition immediately to the lab in-charge. • Handle tools and machinery strictly under faculty/lab assistant supervision.

4	FIRE SERVICE EQUIPMENT	A. Basic Safety Measures • Always wear proper Personal Protective Equipment (PPE) – lab coat, gloves, helmet, and safety shoes etc. • Keep fire extinguishers and first aid kits accessible at all times. • Do not smoke, eat, or drink inside laboratories. • Know the location of emergency exits and evacuation routes. • Report all accidents, spills, or unsafe conditions to the faculty/lab in-charge/Lab technician immediately. • Maintain cleanliness and do not block pathways or exits. • Switch off electrical appliances and gas valves after use. • Participate in regular safety drills and follow instructions of faculty/lab in-charge/Lab technician. B. Lab Specific safety Measures • Students must ensure all users are trained in the proper operation of pumps, valves, nozzles, and pressure measuring instruments. • Students must never exceed recommended pressure levels. Sudden bursts of high pressure can cause injury or equipment failure. • Students must never aim hoses or nozzles at individuals, even if water is not being discharged. • Students must ensure pressure relief valves are installed and functional on pumps to prevent over-pressurization. • Maintain cleanliness and do not block pathways or exits •Students must prevent slips and falls by mopping up water spills immediately. • Students must know the location of emergency shut-off valves, main controls, and exits. • Students must Use clear hand signals or verbal communication when coordinating hydraulic operations in teams.
5	RESCUE EQUIPMENTS & TECHNIQUES	A. Basic Safety Measures • Always wear proper Personal Protective Equipment (PPE) – lab coat, gloves, helmet, and safety shoes etc. • Keep fire extinguishers and first aid kits accessible at all times. • Do not smoke, eat, or drink inside laboratories. • Know the location of emergency exits and evacuation routes. • Report all accidents, spills, or unsafe conditions to the faculty/lab in-charge/Lab technician immediately. • Maintain cleanliness and do not block pathways or exits. • Switch off electrical appliances and gas valves after use. • Participate in regular safety drills and follow instructions of faculty/lab in-charge/Lab technician. B. Lab Specific safety Measures • Pre-use inspection: All rescue equipment (ropes, harnesses, stretchers, breathing apparatus, lifting tools, etc.) must be inspected before and after use for any signs of wear, tear, or malfunction. • Proper handling of ropes and harnesses: Ensure correct knotting, anchoring, and load testing to prevent accidents during rope rescue practice. • Use breathing apparatus responsibly: Check air cylinder pressure and functionality before confined space or smoke rescue demonstrations. • Controlled demonstrations only: Rescue techniques such as rappelling, confined space entry and stretcher lifting must be performed strictly under faculty supervision. • No horseplay or distractions: Rough handling of rescue tools and careless behavior is strictly prohibited. •Lifting Techniques: Use proper body mechanics to prevent strain or injury when handling casualties or heavy equipment. • Post-training inspection: All equipment must be cleaned, dried, and stored properly after each use.
6	FIRE FIGHTING INSTALLATION	A. Basic Safety Measures • Always wear proper Personal Protective Equipment (PPE) – lab coat, gloves, helmet, and safety shoes etc. • Keep fire extinguishers and first aid kits accessible at all times. • Do not smoke, eat, or drink inside laboratories. • Know the location of emergency exits and evacuation routes. • Report all accidents, spills, or unsafe conditions to the faculty/lab in-charge/Lab technician immediately. • Maintain cleanliness and do not block pathways or exits. • Switch off electrical appliances and gas valves after use. • Participate in regular safety drills and follow instructions of faculty/lab in-charge/Lab technician. B. Lab Specific safety Measures • Familiarize yourself with the location of hydrants, extinguishers, hose reels, and control valves. • Ensure hydrant lines and hoses are properly drained and rolled after practice. • Wear protective gear (helmet, gloves, and safety shoes) during demonstrations and exercises. • Avoid horseplay, misuse, or unnecessary operation of fire installations. • Conduct periodic inspection of all installations and record maintenance in the logbook. • Do not test or operate firefighting equipment without prior approval of the instructor.
7	FIRE PREVENTION AND PROTECTIVE MEASURES	A. Basic Safety Measures • Always wear proper Personal Protective Equipment (PPE) – lab coat, gloves, helmet, and safety shoes etc. • Keep fire extinguishers and first aid kits accessible at all times. • Do not smoke, eat, or drink inside laboratories. • Know the location of emergency exits and evacuation routes. • Report all accidents, spills, or unsafe conditions to the faculty/lab in-charge/Lab technician immediately. • Maintain cleanliness and do not block pathways or exits. • Switch off electrical appliances and gas valves after use. • Participate in regular safety drills and follow instructions of faculty/lab in-charge/Lab technician. B. Lab Specific safety Measures • Students Make sure how to operate all safety equipment, including the different types of fire extinguishers • Students Must Follow proper protocols for handling, storing branch pipes, hose and couplings. • Students must all gauges, valves, and controls should be clearly labeled with their function and operating limits. • Students must open and close valves slowly to prevent pressure surges and water hammer. • Students must Ensure all those connections are tightly secured to prevent disconnection or whipping under pressure. • Students must inspect hoses, couplings, gauges, and pumps for leaks, cracks, or wear before operating.
8	COMPUTER AIDED RISK ANALYSIS LAB	A. Basic Safety Measures • Always wear proper Personal Protective Equipment (PPE) – lab coat, gloves, helmet, and safety shoes etc. • Keep fire extinguishers and first aid kits accessible at all times. • Do not smoke, eat, or drink inside laboratories. • Know the location of emergency exits and evacuation routes. • Report all accidents, spills, or unsafe conditions to the faculty/lab in-charge/Lab technician immediately. • Maintain cleanliness and do not block pathways or exits. • Switch off electrical appliances and gas valves after use. • Participate in regular safety drills and follow instructions of faculty/lab in-charge/Lab technician. B. Lab Specific safety Measures • Use surge protectors and UPS systems for electrical safety. •Ensure chairs and workstations are ergonomically adjusted to prevent strain injuries. • Ensure ventilation and cooling for servers and computers. • Keep CO_2 fire extinguishers available for electrical fires. • Use only authorized software and data sets for risk analysis activities. • Handle all computer systems, UPS, and networking equipment with care. • Do not overload electrical sockets or use damaged power cords. • Report any system malfunction or unusual sound/smell immediately to the lab assistant.

9	HEAVY VEHICLES, AUTOMOBILES ENGINEERING & SAFETY	A. Basic Safety Measures • Always wear proper Personal Protective Equipment (PPE) – lab coat, gloves, helmet, and safety shoes etc. • Keep fire extinguishers and first aid kits accessible at all times. • Avoid loose clothing, ties, or jewelry that could become entangled in moving parts. • Secure long hair by tying it back. • Report all accidents, spills, or unsafe conditions to the faculty/lab in-charge/Lab technician immediately. • Maintain cleanliness and do not block pathways or exits. • Never work in the lab without the presence or permission of a faculty member or lab supervisor. • Participate in regular safety drills and follow instructions of faculty/lab in-charge/Lab technician. B. Lab Specific safety Measures • Do not touch rotating or moving parts while they are in operation. Always use insulated tools for electrical work. • Handle fuels, lubricants, and coolants with care; avoid skin contact and inhalation. •Do not perform welding or cutting near fuel storage areas. • Use only the appropriate fire extinguishers (e.g., CO_2 or foam) for fuel and electrical fires. • Store dismantled or old parts in designated racks to prevent tripping hazards and injuries. • Ensure that parts containing residual fluids (such as oil, coolant, or fuel) are drained before demonstrating them. • Do not allow students to mouth-blow fuel or carburetor pipes; instead, use proper air-blowing equipment. •Mark sharp, broken, or damaged parts with warning tags.

D3. Project Laboratory/Research Laboratory

The Department of Fire Technology & Safety Engineering at IPS Academy Institute of Engineering & Science, Indore is committed to fostering a culture of research, innovation, and entrepreneurship. To support students academic projects, industrial research, and entrepreneurial ventures, the department has established specialized Project Laboratories, Research Laboratories, and a Centre of Excellence that cater to the needs of both undergraduate students and faculty members.

****A. Research Laboratories and Project Laboratories****

****I. FIRE EQUIPMENT TESTING AND RESEARCH LAB****

The Fire Equipment Testing and Research Laboratory serves as a critical facility dedicated to evaluating the effectiveness and safety of essential fire protection and prevention equipment Within this dynamic environment, the laboratory conducts rigorous assessments across the following key domains:

1. Rescue Equipment Techniques

a. Electrical Conductive Testing: We rigorously assess the electrical properties of rescue equipment under a range of conditions, ensuring the highest standards of safety and functionality.

b. PPE Cloth Testing: Our evaluations of personal protective equipment (PPE) materials focus on their durability, chemical resistance, and capacity to shield against environmental hazards, emphasizing the importance of robust protection in critical situations.

c. Helmet Impact Testing: Through comprehensive impact resistance assessments, we ensure that helmets provide unparalleled protection for users during emergencies, fostering confidence in their life-saving capabilities.

d. Safety Shoe Toe Testing: We meticulously analyze the protective features of safety shoes, with particular attention to the resilience of the toe area against potential impacts, highlighting their crucial role in safeguarding feet in hazardous conditions.

2. Fire Prevention and Protection Measures

a. Water Repellency Test of Dry Chemical Powder (DCP): Examination of the effectiveness of DCP in resisting water to maintain chemical integrity during storage and use.

b. Foam Induction Ratio and Burn Back Resistance Test: Evaluation of foam suppression systems for their induction efficiency and resistance to re-ignition.

c. Discharge Time Test of the Extinguisher: Measurement of the time taken for extinguishers to discharge completely, ensuring compliance with safety standards.

d. Hydrostatic Pressure Testing of Extinguishers: Testing the integrity of fire extinguishers under high-pressure conditions to prevent failures during operation.

e. Hygro-scopicity and Caking Test of Dry Chemical Powder (DCP): Assessment of the moisture absorption properties of DCP and its tendency to clump or cake, affecting performance.

3. Hydraulics and Fire Services

a. Hose Burst Test: We determine the maximum pressure tolerances of hoses, ensuring they are equipped to withstand extreme conditions without compromising safety.

b. Hose Elongation Test: Our evaluations provide insight into hose resilience and behavior under pressure, essential for understanding their limitations and applications in emergency scenarios.

Through this comprehensive approach to research and testing, the Fire Equipment Testing and Research Laboratory aim to enhance safety protocols and improve the overall efficiency of fire prevention and response mechanisms. Commitment to excellence in these evaluations not only safeguards lives but also reinforces confidence in the performance of fire safety equipment.

II. CENTER OF EXCELLENCE (COE):- FIRE TECHNOLOGY PARK

The Department of Fire Technology and Safety Engineering at IPS Academy IES Indore, has established a **Centre of Excellence – Fire Technology Park** with the objective of bridging the gap between theoretical learning and practical application. It is a specialized facility which is developed to promote practical training, applied research, and industry-academia collaboration in the field of fire safety and disaster management.

This facility provides a comprehensive platform for students, researchers, and industry professionals to engage in experiential learning, skill enhancement, and applied research in the field of fire protection, industrial safety, and disaster management.

The Centre is equipped with state-of-the-art infrastructure, advanced fire protection systems, and rescue equipment that simulate real-time scenarios to enhance the competence of students, professionals, and stakeholders.

OBJECTIVES

- To provide hands-on training in fire protection systems and firefighting equipment.
- To simulate real-life emergency scenarios for practical exposure.
- To encourage industry-academia collaboration for skill development and consultancy projects.
- To promote safety culture and professional competence among engineering students.
- To support research and innovation in advanced firefighting technologies.

FACILITIES AVAILABLE IN THE FIRE TECHNOLOGY PARK-

- **Facility 1: Hydrant Post**
- **Facility 2: Water Spray System**
- **Facility 3: Foam Pourer System**

- **Facility 4: Multipurpose Fire Tender**
- **Facility 5: Deluge Valve System**
- **Facility 6: Water Mist System with Nitrogen Gas Cylinder**
- **Facility 7: Trailer Pump with Complete Accessories**
- **Facility 8: Airplane Model**
- **Facility 9: Fixed Water Monitor**
- **Facility 10: 25-Foot Tower with Pickets, Ladder & Accessories**
- **Facility 11:** Confined Space Rescue Facility

The above mentioned facilities not only support academic requirements but also enhance the institution's role in promoting safety culture, applied research, and community services. Through a structured framework of **best practices, research initiatives, focused training, and technical support**, the Fire Technology Park has evolved into a model ecosystem for experiential learning, innovation, and professional development in the field of fire technology and safety engineering.

1. Best practices

The Fire Technology Park at IPS Academy has been conceptualized as a live demonstration and training facility where students experience real-life fire scenarios under controlled and supervised conditions. One of the best practices followed is the systematic maintenance and operational readiness of hydrant posts, water spray systems, multipurpose fire tenders, and other installations. Regular inspections, functional testing, and mock drills ensure that all systems remain reliable and efficient for both academic and training purposes.

2. Research

The Fire Technology Park functions as a hub for applied research in fire safety and allied domains. Faculty and students collaborate to evaluate the efficiency of hydrant networks, spray systems, and foam pourer applications through experimental studies. Research activities extend to studying fire load assessments, heat release rates, suppression effectiveness, and innovative use of firefighting media.

In addition, projects focus on integrating modern technologies such as fire detection, automated suppression systems, and computer-aided risk analysis. These research initiatives not only enhance the academic ecosystem but also contribute solutions for real-world industrial problems. The findings are often disseminated through publications, student project reports, and participation in conferences, positioning the department as a knowledge contributor in the field of fire safety engineering.

3. Training on Focus Areas

The Fire Technology Park provides structured training modules that focus on equipping students with practical competencies and confidence in handling emergencies. Core training areas include hydrant operations, water spray techniques, foam application strategies, and the functioning of multipurpose fire tenders. Simulated fire scenarios expose students to industrial hazards, building fire emergencies, and rescue operations, ensuring preparedness for diverse workplace conditions.

Training also emphasizes disaster preparedness and crisis management, encouraging students to think critically and act decisively during emergencies. These practical drills are reinforced with classroom learning, bridging the gap between theory and practice. By participating in structured training sessions, students not only gain operational proficiency but also develop leadership, teamwork, and decision-making skills, which are essential for their professional growth in fire safety and disaster management sectors.

4. Technical support

The Fire Technology Park extends technical support on two fronts—student development and industry collaboration. For students, the park provides a platform to experiment, innovate, and test their academic projects in a real-time environment. Under faculty supervision, students can design, install, and evaluate small-scale fire suppression systems, conduct performance testing of equipment, and practice advanced firefighting and rescue techniques. This exposure helps them refine their problem-solving skills and gain industry-relevant expertise.

For industries and community stakeholders, the park offers consultancy services, equipment performance testing, and fire safety audits. It also organizes awareness programs, safety demonstrations, and technical workshops for employees of nearby industries. By bridging academia with practice, the Fire Technology Park ensures that students not only receive technical support for their learning but also emerge as contributors of safety solutions for society and industry at large.

PART E: First Year faculty and financial Resources

(Data to be filled in for the first year course faculty and budget allocation and utilization)

E1. First Year Student-Faculty Ratio (FYSFR)

Table No. E1.1: FYSFR details.

Year	Sanctioned intake of all UG programs (S4)	No. of required faculty (RF4= S4/20)	No. of faculty members in Basic Science Courses & Humanities and Social Sciences including Management courses (NS1)	No. of faculty members in Engineering Science Courses (NS2)	Percentage= No. of faculty members ((NS1*0.8) + (NS2*0.2))/(No. of required faculty (RF4)); Percentage= ((NS1*0.8) +(NS2*0.2))/RF

2022-23(CAYm2)	1200	60	32	27	52
2023-24(CAYm1)	1080	54	34	27	60
2024-25(CAY)	1350	68	39	28	54

E2. Budget Allocation, Utilization, and Public Accounting at Institute Level

Table No. E2.1: Budget and actual expenditure incurred at Institute level.

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Infrastructure Built-Up	13500000	12165791	30000000	29247341	3000000	2849542	4000000	3722103
Library	4000000	3827562	3600000	2942647	3000000	2671152	2500000	2428320
Laboratory equipment	15000000	11293138	17500000	14597042	17000000	16582225	3000000	2888247
Teaching and non-teaching staff salary	310000000	306841161.9	210000000	198729602.6	217000000	216013546	197000000	196375951
Outreach Programs	850000	445936	800000	276974	700000	643959	100000	9483
R&D	15000000	11943535	14500000	11377521	13000000	12293948	9500000	8868850
Training, Placement and Industry linkage	13000000	12546196	11000000	9983475	10000000	8962633	9000000	7672202
SDGs	5500000	4882136	5000000	4750248	4500000	3948526	4000000	3459489
Entrepreneurship	1500000	1212111	1400000	1278748	1300000	1174590	500000	153000
Others, specify	148000000	146195460.96	123000000	119016351.81	162000000	149976963.6	65000000	54990405
Total	**526350000**	**511353027.86**	**416800000**	**392199950.41**	**431500000**	**415117084.6**	**294600000**	**280568050**

E3. Budget Allocation, Utilization, and Public Accounting at Program Specific Level

Table No. E3.1: Budget and actual expenditure incurred at program level.

Items	Budgeted in 2024-2025	Actual Expenses in 2024-2025 till	Budgeted in 2023-2024	Actual Expenses in 2023-2024 till	Budgeted in 2022-2023	Actual Expenses in 2022-2023 till	Budgeted in 2021-2022	Actual Expenses in 2021-2022 till
Laboratory equipment	0	0	0	0	0	0	0	0
Software	0	0	0	0	0	0	0	0
SDGs	700000	681334	600000	555824	550000	455250	600000	576366
Support for faculty development	300000	244828	300000	205250	300000	308933	250000	203500
R & D	600000	574145	1100000	1082245	500000	431062	750000	733800

Industrial Training, Industry expert, Internship	500000	463936	200000	142723	700000	655209	30000	8000
Miscellaneous Expenses*	50000	34000	50000	43861	50000	50970	50000	25498
Total	**2150000**	**1998243**	**2250000**	**2029903**	**2100000**	**1901424**	**1680000**	**1547164**