

पत्रांक:-SE-AP-(भ)03/2025-.....

4543 (अ)

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119

बिहार सरकार

भवन निर्माण विभाग।

प्रेषक,

ई० सुरेश प्रसाद प्रभाकर,

अभियंता प्रमुख-सह-अपर आयुक्त-सह-विशेष सचिव।

सेवा में,

मुख्य अभियंता (पटना),

भवन निर्माण विभाग,

बिहार, पटना।

पटना, दिनांक-...20/5/2026

विषय:-

भारतीय प्रौद्योगिकी संस्थान, पटना के परिसर में Centre of Excellence of Fire Testing Training and Research Laboratory (FTTRL) के निर्माण हेतु तकनीकी अनुमोदित प्राक्कलन भेजने के संबंध में।

प्रसंग:-

1. मुख्य वास्तुविद्, भवन निर्माण विभाग, बिहार, पटना का पत्रांक- 249/वास्तु0/अनु0 दिनांक- 02.04.2026
2. Director IIT, Patna Ref:- IITP/DIR/2024/11/20/01 Dated:- 20.11.2024 & Signed by Chief Architect, BCD, Patna Dated.-19.09.2025 & Letter no.- 249 of Chief Architect Dated- 02.04.2026
3. मुख्य अभियंता (पटना), भवन निर्माण विभाग, बिहार, पटना का पत्रांक- 729 (P) दिनांक- 10.03.2026

महाशय,

उपर्युक्त विषय के आलोक में प्रासंगिक पत्र द्वारा प्राप्त प्रस्तावित निर्माण कार्य के मुख्य वास्तुविद् द्वारा प्राप्त 1715 वर्ग मीटर क्षेत्रफल का संशोधित नक्शो एवं CPWD - PAR-2025 के आधार पर विषयांकित निर्माण का संशोधित तकनीकी अनुमोदन का प्रस्ताव निम्नलिखित है-

क्र० सं०	कार्य का नाम	पूर्व में प्रदत्त तकनीकी अनुमोदन की राशि	संशोधित तकनीकी अनुमोदन की राशि
1.	Modified Estimate for Construction of Centre of Excellence of Fire Testing Training and Research Laboratory at IIT Patna, Bihar.	₹ 1866.72 Lakhs	₹ 1922.39 Lakhs

यह संशोधित तकनीकी अनुमोदन पूर्व से प्रदत्त प्रशासनिक स्वीकृति की राशि के अनुज्ञेय सीमा के अन्तर्गत है।

उक्त संशोधित प्राक्कलन पर सक्षम प्राधिकार द्वारा तकनीकी अनुमोदन प्रदान किया गया है।

पूर्व में विभागीय पत्रांक:- 5779 (भ) अनु0 दिनांक:- 23.06.2025 को इस हद तक संशोधित समझा जाय।
अनु0:-यथोक्त।

विश्वसभाजन,

(सुरेश प्रसाद प्रभाकर)

अभियंता प्रमुख-सह-अपर आयुक्त-सह-विशेष सचिव।

TECHNICAL REPORT

- (i) Name of Scheme/Project:- Modified Estimate for Construction of Centre of Excellence of Fire Testing Training and Research Laboratory at IIT Patna, Bihar.
- (ii) Project Cost:- Rs. 1922.39 Lakhs
- (iii) Reference of Authority:- मुख्य वास्तुविद्, भवन निर्माण विभाग, पटना का पत्रांक- 249/वास्तु0/अनु0 दिनांक- 02.04.2026
- (iv) Reference of Approval of Map :- Plan given by IIT, PATNA BY Re- IITP/DIR/2024/11/20/01 Dated:- 20.11.2024 & Signed by Chief Architect, BCD, Patna Dated.- 19.09.2025 & Letter no.- 249 of Chief Architect dated- 02.04.2026

(v) **Description :**

(a) This Estimate Includes:-

S. No.	Building Name	Built up Area	Total Built up Area	Building Cost (Rs.)	Building PAR (/Sft)
		Sqm	Sft		
1	Centre of Excellence of Fire Testing Training and Research Laboratory at IIT Patna, Bihar.	Ground Coverage 1340.00 Total B/U Area 1715.00	18453.40	74294459	4026

Note:- Cost of Development of site, Boundary Wall & are not Included in above table.

(b) **No. of Mandays to be created (Approx) :-**

20% of Total Amount/816.50
 $192239449 \times 20\%/816.50 = 47089$ Nos.

- (c) Boundary wall :- Yes
- (d) Furniture & Furnishing :- Yes
- (e) Provision of A.C:- Yes
- (f) 10% Extra shall be added, if approval is granted after 6 months.
- (g) After 12 months estimate shall be revised.
- (h) Rates are followed in framing Estimate :- CPWD Plinth Area Rates of 2025.

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 BCD, Patna

**Modified Estimate for Construction of Centre of Excellence of Fire Testing Training and Research
Laboratory at IIT Patna, Bihar.**

ESTIMATE BASED ON CPWD PLINTH AREA RATE 2025

AREA STATEMENT

Ground Coverage

Total built up area

14418.40

18453.40

sft or

sft or

1340.00

1715.00

sqm

sqm

**S.
NO.**

DESCRIPTION

QUANTITY

UNIT

RATE

AMOUNT

1	1 BUILDING COST (Specification as per Anx-I)						
1.1	RCC Framed Structure (Upto six storeys)						
1.1.1	Floor height 3.60 mt (Area as Per Tender Drawing) Every 0.3 metre or part of thereof, additional/less height of floor above normal floor	1,715.00	sqm	@ Rs	30920 /sqm		5,30,27,800
1.3.2	height of 3.60 metre/3.00 metre (on areas having additional/less height)						
(a)	Large Scale Fire Testing Laboratory proposed floor height = 12.00 metre (for 523.22 sqm) (12.0-3.6)/0.3x434 = 12152.00	523.22	sqm	@ Rs	12152 /sqm		63,58,169
(b)	High Temperature material Testing & Simulation Lab proposed floor height = 4.5 metre (for 107.71 sqm) (4.5-3.6)/0.3x434 = 1302.00	107.71	sqm	@ Rs	1302 /sqm		1,40,238
1.3.3	Every 0.3 metre or part of thereof, higher Plinth height over normal plinth height of 0.60 metre (on ground floor area only)	1,340.00	sqm	@ Rs	470 /sqm	(a)	5,95,26,208
1.3.4	Every 0.30 metre or part thereof, deeper foundations over normal depth of 1.20 metre (on ground floor area only)						
	Proposed Depth upto 2.4M, Extra depth = 1.2M, Rate = 1.2/0.3X205 = 820	1,340.00	sqm	@ Rs	820 /sqm		10,98,800
1.5	Fire Fighting					(A)	6,12,54,808
1.5.2	With wet riser system	1,715.00	sqm	@ Rs	890 /sqm		15,26,350
1.6	Fire alarm system						
1.6.2	Automatic fire alarm system	1,715.00	sqm	@ Rs	600 /sqm		10,29,000
1.7	Pressurized mechanical ventilation system in the basements with supply duct of exhaust blowers (on areas where mechanical ventilation is required)						
(a)	Large Scale Fire Testing Laboratory	523.22	sqm	@ Rs	1050 /sqm		5,49,381
(b)	High Temperature material Testing & Simulation Lab	107.71	sqm	@ Rs	1050 /sqm		1,13,096
2	SERVICES					(B)	32,17,827
2.1	Internal water supply and sanitary Installations @ 4 % of building basic cost(a)	4%					
2.3	Internal electric installations @12.5% of building basic cost(a)	12.5%					23,81,048
							74,40,776
						(C)	98,21,824
						SUM (A+B+C)	7,42,94,459 ..(D)
						Building PAR	4,026 /sft
2.2	External service connection						
2.2.2	Civil External Service Connection @ 1.25 % of building basic cost	1.25%					
2.2.1	Electrical External Service Connection @ 3.75 % of building basic cost(a)	3.75%					7,44,078
2.4.1	Power wiring Plug @ 4% of building basic cost(a)	4.00%					22,32,233
2.4.2	Lightning conductors.						23,81,048

116

12

	@ 0.25% of building basic cost(a)	0.25%						1,43,816
2.4.3	Telephone Conduits.							
	@ 0.25% of building basic cost(a)	0.25%						1,43,816
							(E)	56,54,990
4	5	RCC Water Tank						
	5.1	Overhead tank without independent staging Size	6,000.00	Ltr.	@ Rs	23	/Ltr.	1,38,000
							(F)	1,38,000
5	6	DEVELOPMENT OF SITE						
	6.1	Levelling						
	6.3	External Sewerage						
	6.4	Filtred water Supply						
	6.4.1	Distribution lines up to 100mm dia						
	6.4.2	Peripheral grid 150mm to 3000 dia pipes						
	6.4.3	Unfiltred Water supply distribution lines.						
	6.5	Storm water drain.						
	6.6	Rain water Harvesting (RWH)						
	6.7	Trenches for services.						
	Misc	conection services/supply to/from existing campus facilities such as power supply, UGWT, STP, WTP etc.						
		@ 4.5% of building basic Cost (a)	5,95,26,208		4.50%			26,78,679
							(G)	26,78,679
6	7.8	Solar Photo Voltaic Power Generation System						
	7.8.1	Supping, Installation, Testing and Commissioning of Grid Interactive rooftop solar Photo voltaic power	8.00	kwp	@ Rs	58480	/kwp	4,67,840
	7.10	CCTV SYSTEM						
	7.10.1	supplying installation, testing, and commissioning of IP based CCTV System for building security comprising of PTZ/fixd camera, cabling, digital recording, HD display system with minmum display of 5" x 8" per camera and hard ware to 15 % of the total plinth area as per requirement software support for indoors only (Rate applicable on otal plinth area but CCTV coverage shall be limited						
		Area = 70 % of B/U Area	1,200.50	Sqm	@ Rs	210	/Sqm	2,52,105
	7.10.2	For external surveillance						
		Area = 30% of B/U Area	514.50	Sqm	@ Rs	210	/Sqm	1,08,045
	7.17	LAN SYSTEM						
	7.17.1	supplying installation, testing, and commissioning of LAN system comprising of core switches & 12 switches with 10G, 10giga SFP modules, WIFI access.....						
		Area = 70 % of B/U Area	1,200.50	sqm	@ Rs	560	/sqm	6,72,280
	7.19	Conference Hall						
		Supplying installation, testing, and commissioning of audio visual/conference system (Rate applicable on carpet area of Hall only)						
		(Approx)	65.00	Sqm	@ Rs	11890	/Sqm	7,72,850
								22,73,120 ..(H)
7		SITC of Electric Overhead travelling (EOT) Crane and Gantry Girders						
		@ 5% of building basic Cost (a)	5,95,26,208		5.00%			29,76,310
8		Supply & Application of Specilized Fire Rated works for 120 Min rating such as Fire Door / windows, Refractory Bricks, Refractory Mortar, Refractory Adhesive, intumescent paint etc.						
		@ 5% of building basic Cost (a)	5,95,26,208		5.00%			29,76,310
								59,52,621 ..(I)
							Total (D+E+F+G+H+I) Rs.	9,09,91,869 ..(J)
9		CONTINGENCY						
		@ 1.0 % upto Rs.100 Lac						1,00,000
		@ 0.5 % Above Rs.100 Lac						4,04,959
10		For Equipment (as per given by IIT, Patna)						5,04,959 ..(K)
								8,00,00,000
11		For Operation & Maintenance of Equipment for 5 Years						
		As per IIT Patna Report						1,31,00,000
								9,31,00,000 ..(L)

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12 For Furniture & Furnishing

59,52,621 ..(M)

@ 10% of building basic cost (a)

13 M.R. Split AC

26.00

Nos.

@ Rs 65000 /Nos.

16,90,000 ..(N)

Grand Total (I+J+K+L+M) Rs. 19,22,39,449

Say Rs. 1,922.39 Lakh

NOTES :-

- 1 Estimate is based on Plan given by IIT, PATNA BY Re- IITP/DIR/2024/11/20/01 Dated:- 20.11.2024 & Signed by Chief Architect, BCD, Patna Dated:- 19.09.2025 & Letter no.- 249 of Chief Architect dated- 02.04.2026
- 2 Rates are based on the CPWD Plinth Area Rates 2025
- 3 10% Extra shall be added, if approval is granted after 6 months.
- 4 After 12 months estimate shall be revised.
- 5 Sl. No. 10,11,12 & 13 are subjected to Approval by Competent Authority.

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Technically approved for cost Rs 1922.39 Lakh (one thousand nine hundred twenty-two Lakh and thirty-nine thousand only).

1922.39 Lakh (one thousand nine hundred twenty-two Lakh and thirty-nine thousand only).

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