



MINUTES OF 31st MEETING OF THE BUILDING & WORKS COMMITTEE HELD ON 24th Apr 2023 AT 11.30 AM THROUGH WEBEX(ONLINE) & Oom room, NATIONAL INSTITUTE OF TECHNOLOGY, TIRUCHIRAPPALLI.

PRESENT:

1. Dr. G.Aghila - Chairperson
Director,
NIT Tiruchirappalli
2. Shri. Pawan kumar - Member
Dept of Higher Education,
MoE, Govt.of India
3. Dr. K. Baskar - Member
Dean (Planning & Development)
NIT Tiruchirappalli
4. Shri. Maruthanayagam Dhayalan - Member
Power grid corporation of India ltd
Tamil Nadu
5. Dr. R. G. Robinson, Professor, - Member
Department of Civil Engineering
Indian Institute of Technology Madras
Chennai – 600 036
6. Dr. G. Saravana Ilango - BoG Member
Department of EEE
NIT Tiruchirappalli
7. Dr. N. Thamaraiselvan - Member Secretary
Registrar i/c
NIT, Tiruchirappalli
8. Dr. R. Manjula - Special Invitee
Associate Dean (Planning and Development)- Civil
NIT Tiruchirappalli

9. Dr. Karthik Thirumala - Special Invitee
Associate Dean (Planning & Development)- Electrical
NIT Tiruchirappalli
10. Er. R. Narayanan - Special Invitee
Executive Engineer,
NIT Tiruchirappalli

The Chairperson welcomed the Members and Special Invitees to the 31st Meeting of the Building and Works Committee and briefed the B&WC about the observations since the last B&WC Meeting. Thereafter the Agenda items were taken up for discussion.

ITEM NO. 1. CONFIRMATION OF THE MINUTES OF THE 30th MEETING OF THE BUILDING & WORKS COMMITTEE HELD ON 21.11.2022.

The Minutes of the 30TH Meeting of the Building & Works Committee (B&WC), NIT Tiruchirappalli held on 21st Nov 2022 were confirmed as circulated.

**RESOLUTION RESOLVED THAT the Minutes of the 30th
31/B&WC/2022/1 Meeting of Building & Works Committee
be Confirmed.**

ITEM NO. 2. ACTION TAKEN REPORT ON THE MINUTES OF THE 30th B&WC MEETING HELD ON 21.11.2022.

The details of Action Taken on the decision of the B&WC are given below:-

Resolution No.	Gist of the Decisions of the 30th Meeting of the B &WC	Action Points / Action Taken
30/B&WC/2022/1	Confirmation of the Minutes of the 29 th Meeting of B&WC	Confirmed. No action is required
30/B&WC/2022/2	Action Taken Report on the Previous Meeting of the B&WC.	Appropriate actions were taken
30/B&WC/2022/3	Approval of New work proposal Item no: 3(i)- Internal Painting of Ground & first floor, Student desk and Stainless grill work in the Lecture Hall Complex Building	The Internal painting work of Ground floor & first floor, Student desk & SS grill work is under progress by CPWD.

	<p>3(ii) – Construction of UG sump, Overhead tank & cycle parking shed for 506 seated Amethyst Boys Hostel.</p> <p>3(iii) Cycle parking and fencing work around 506 bedded boys hostel</p> <p>3(iv) Furniture for all rooms (Cot, Table, Chair etc...) for the 506 bedded boys hostel</p> <p>3(v)- Construction of Hostel under PM-AJAY scheme</p> <p>3(vi)- Painting for Quarters</p> <p>3(vii)- Re-carpeting of damaged road in Hostel</p> <p>3(viii)- Additional approval- for supply, installation, testing, and commissioning of “New substation near OJAS at NIT campus.”</p> <p>3(vii)- Demolition of old quarters</p>	<p>Preliminary study has been carried out on identifying the suitable location and height of OHT and UG sump.</p> <p>Location identified. The work is to be started by CPWD</p> <p>To be discussed with CPWD.</p> <p>The detailed estimate was obtained from CPWD and while uploading the estimate in the PM-AJAY website, it was ceiling the amount for an Rs.7.5 Crore and it was asking the approval from the concern ministry for further fund approval.</p> <p>The AA & ES approval is under progress.</p> <p>Detailed survey has to be carried out by Transportation specialist</p> <p>Technical feasibility is under process.</p> <p>Based on the approval, the possibility for new building in the same location is being explored.</p>
30/B&WC/2022/4	<p>Ratification and approval of the Works executed & undertaken by the Estate Department from 11.06.2022 to 31.10.2022</p> <p>Progress report of various construction works entrusted to CPWD</p>	<p>Ratified and appropriate actions were taken</p> <p>The progress of work carried out by CPWD was inspected by Monitoring committee fortnightly periodic report was submitted.</p>

**RESOLUTION RESOLVED THAT the action taken on the
31/B&WC/2023/2 decisions of the 30th Meeting of Building & Works
Committee be noted.**

ITEM NO 3. APPROVAL FOR NEW WORKS.

i	Construction of Boys & Girls hostel	Rs. 160 Cr
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The existing capacity and the accommodated strength of boys and girls hostels are shown in below Table. The actual capacity of Boys Hostels is 4660 whereas 5373 boys were accommodated. The excess accommodation is achieved by converting double bedded rooms to triple bedded and single bedded room to double bedded room and in some cases triple bedded converted to four bedded rooms by providing extra cot as shown in below Table 1. The hostels such as Garnet A, Garnet B, Garnet C, Agate, Beryl, Amber A and Amber B were converted to accommodate excess student strength. The excess students accommodated against actual seating capacity is 713.

The old hostels such as Ruby, Emerald, Pearl, Diamond, Jade, Sapphire were constructed during 1964 and all are in damaged condition.

The cost incurred for repair is much higher. The total number of students currently accommodated in those hostels is around 756. As of now, due to shortage of hostel accommodation, the students were accommodated in the old hostels.

- a. Excess Students accommodated in all hostels - 713
- b. Students in old hostels - 756
- c. Seating capacity required (a+b) - 1469
- d. New 506 Boys hostel under construction - 506
- e. Net seating capacity required (c-d) - 963

As on date, the total strength of students (Boys and Girls) is 7006. It was observed that over the past 10 years, the student strength is increased by 30%. Hence keeping this in mind, future requirement for another 10 years will be 2100 additional seating capacity.

Hence, it is proposed to construct the following in Phase-1

1. 1500 seating capacity boys hostel (preferably Highrise building) with Mess and Dining – Rs 120 crores
2. 500 capacity Girls Hostel (preferably Highrise building) Mess and Dining – Rs. 40 crores

The proposed building shall be provided with all amenities such as firefighting, conducive facilities for differently abled people, elevators etc... The Building and Works Committee discussed the estimate of Rs. 160 crores for the proposed 2000 seated Boys and Girls Hostels for Undergraduate Students and Post Graduate Students.

The Building works Committee reviewed the proposal and recommended to FC & BoG.

ii	Extension of the centralized powerhouse for increased load demand and six new annex buildings.	Rs.3.92 crore
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The demand for electricity consumption on our campus has increased multifold over the period. However, the transformers were not augmented and currently operating at near full-load capacity. The existing two 1000 KVA transformers in power house is feeding the essential supply for ORION, LOGOS, CEESAT, CEESAT annex, Third-i, Octagon, CSG annex, Mechanical, MME, EEE, ECE, ICE, CSE, CIVIL, MBA, Production, Lyceum, Workshop and T&P departments buildings. The existing 1000 KVA transformer-1 and 1000 KVA transformer-2 have a rated load of 1333 A and has a peak load of 1200A and 900A. In addition, there is an additional load demand due to new centers and Supercomputer facility in the recent years.

Also, the annex buildings for the following six departments are under construction.

Electrical and Electronics Engineering, Mechanical & Metallurgical and Material Engineering, Mechanical Engineering, Civil Engineering, Instrumentation and control engineering, Production Engineering.

The extension of the centralized powerhouse & augmentation of the distribution system is essential to meet the increasing demand and fulfil the functional requirements of the said buildings. Hence, this proposal is put forth for extension of the centralized powerhouse inclusive of a 2x1000 kVA, 11KV/415V transformers and substation expansion with its connected equipment, necessary panels, cables, etc. The rough estimated cost works out to Rs. 3.92 crores

The Building works Committee reviewed the proposal and recommended to FC & BoG.

iii	Supply, installation, testing, and commissioning of 1010kVA HT DG set with synchronization	Rs. 1.95 Crore
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In the 18th BWC, an amount of Rs. 1.95 Crores was sanctioned for the new 1010 kVA HT DG in the main powerhouse with synchronization of the existing 2 x 750 kVA HT DGs. It was kept on hold based on the future power load.

Now, there is an increase in demand and six new annex buildings are under construction. The existing HT DG (11 KV, 2 x 750 KVA) have tripped 7 times due to overload in the month of March 2023 (overload trip details are attached in the table below in page-36). Even after reducing the load by isolating quarters load, shopping complex and other shop loads and temporary supplies, the HT DG is frequently tripped due to overload. Hence an additional 1010 kVA DG set is essential to meet the current power demand.

The Building & Works Committee discussed about the Supply, installation, testing, and commissioning of 1010 kVA HT DG set with synchronization in the main powerhouse.

The Building works Committee reviewed the proposal and recommended to FC & BoG.

iv	Construction of Faculty Quarters (100nos.)	Rs. 81 Crores
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As on date, the faculty strength of the Institute is 329 Nos and the quarters available for the faculty are 302 only. Among the existing quarters 146 Nos are constructed before 50 years. The open call-for for quarters is published is as follows:

Sl no	Date of call-for	No. of Applicants.	No. of Quarters allotted
1	24.07.2020	90	65
2	29.10.2021	80	33
3	08.09.2022	61	25
4	31.03.2023	66	48

Many of the departments are not fulfilling the required Student Faculty Ratio (SFR) and hence, many more faculty members are to be recruited. Considering the existing faculty strength and proposed incoming faculty strength, there is a huge demand for faculty quarters. Hence, it is proposed to construct 100 Nos. of Faculty quarters to support all cadre of faculty members such as Assistant, Associate and Professors with an approximate total plinth area of 13575 (135.75 x 100) sq.m with provision for Car parking, firefighting, conducive facilities for differently abled people, elevators etc. are considered in the design. The Building and Works Committee reviewed the proposed cost estimate of Rs.81 crore for the proposed Construction of Faculty Quarters. The Building works Committee reviewed the proposal and recommended to FC & BoG.

v	Construction of Non-Teaching Quarters (70nos.)	Rs. 30 Crore
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The Non-teaching staff strength of the institute is added by 70 Nos in the year 2021. Also, the 30th BWC has approved demolishing 31 Nos of quarters which is not in

livable condition. The quarters in 18th & 19th street are constructed in the year 1964. The buildings have served its life condition. The cost incurred for the repair and maintenance works are increasing due to the age of the building and floor settlement of the old buildings. In addition to that, the occupant lifestyle has developed and it is very difficult to live in the 36sq.m quarters with a family in the 18th & 19th street. Hence, it is proposed to construct 70 Nos. of Non-Teaching Quarters to accommodate additional staff strength with an area of 4900 (70x 70) sq.m. The proposed building will be provided with Car parking, firefighting, conducive facilities for differently abled people, elevators are considered in the design. The Building and Works Committee reviewed the proposed cost estimate of Rs. 30 crores for the proposed Construction of Non-Teaching Quarters. The Building works Committee reviewed the proposal and recommended to FC & BoG.

vi	Construction of Research Scholars Quarters (100 Nos.)	Rs. 30 Crore
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The open quarters call-for were published for all the research scholars as mentioned below. During the last four open call-for, there are more than 70 eligible scholars who were not getting the quarters due to non-availability of the quarters. In general, the scholars are getting the quarters during the third/fourth year of the study.

Sl no	Date of call-for	Applicant nos.	Quarters allotted nos
1	11.09.2020	55	19
2	25.02.2021	51	8
3	20.10.2021	75	34 (including PG 6 Nos)
4	24.08.2022	82	25

NITT is not providing HRA for married scholars who are staying outside the campus. It is proposed to construct 100 Nos. of Research Scholar Quarters to accommodate additional Research Scholars strength with an area of 5000 (100 x 50) sq.m. The proposed building will be provided with cycle parking, firefighting,

conducive facilities for differently abled people and elevators. The Building and Works Committee reviewed the proposed cost estimate of Rs.30 crore for the proposed Construction of Research Scholar Quarters. The Building works Committee reviewed the proposal and recommended to FC & BoG.

vii	Construction of 250 Single seated International Hostel	Rs.70 Crore
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As part of the MoE's 'Study in India' initiative, to attract foreign students, It is proposed to construct 250 Single seated International hostel with an area of 14000 sq.m. The proposed building will have provision for all modern amenities, attached toilets and bathrooms, firefighting, site landscaping, furniture, Air Conditioning, Recreational facility, gyms, self-cooking facilities, conducive facilities for differently abled people, elevators are considered in the design. The Building and Works Committee reviewed the proposed cost estimate of Rs. 70 crore for the proposed 250 seated International hostel. The Building works Committee reviewed the proposal and recommended to FC & BoG.

viii	Construction of 350 seated Conference hall	Rs 5 Crore
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At the moment, NITT common halls are not convenient to organize International Conferences, seminars and workshops. The seating capacity of the existing halls are 5000 (GJCH), 1200 (BARN), 500 (EEE), or with smaller capacities within 100. Operating GJCH or BARN is too expensive and mostly it will be empty because of the larger seating capacity. The other common halls are smaller except EEE Auditorium. The EEE Auditorium is a long hall with inadequate viewing and interacting facility. Hence, it is proposed to construct a Conference Hall with a total seating capacity of 350 among which 250 seats in the ground floor and 100 seats in

the mezzanine floor. The main hall and stage will have double roof height with all modern wall finishes, digital screens, audio/video facilities. It is proposed to have semi-circular seating arrangements with individual mics for better viewing the main stage programs and also for better interaction. This hall may be used for regular Senate meetings and Faculty meetings also as the seating capacity is more comfortable. The number of senate members in the Institute have raised more than 100 in the recent days and expected to be higher in the near future. In the existing senate hall, it is difficult to accommodate for all the members. Also, the existing hall inside the campus does not have the modern facility. The cost towards the construction of the proposed hall will be around Rs.5 crore. The Building and Works Committee reviewed the proposed cost estimate of Rs. 4 crore for the proposed 350 seated Conference hall. The Building works Committee reviewed the proposal and recommended to FC & BoG.

ix	Construction of Hostel under PM-AJAY scheme	Rs.22.5 crore
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The Ministry of Social justice and empowerment is funding for the Construction of hostel to Top 100 NIRF ranking institute in India under Pradhan Mantri Anusuchit Jaati Abhyuday Yojna (PM-AJAY). The hostel can be accommodated with 70% of SC/ST students and remaining 30% can be filled with others. As per the guidelines of the scheme, the Higher Educational Institutions which are top 100 ranked as per the National Institutional Ranking Framework (NIRF) of the Government of India and fully or partially funded by the Centre/State/UT Government shall be eligible for funding. The seating capacity is restricted to a ceiling of 250 Nos. The fund provided by the Ministry of Social Justice and Empowerment is Rs.3 lakhs per student. Hence, as per the student strength, the Ministry of Social Justice and empowerment can provide Rs.7.5 Crore for the hostel construction. Any amount more than that has to be

provided by the Concerned department ministry (MoE) as per the circular. The CPWD has submitted the estimate of Rs.30 crore for the work. Hence, the additional cost of Rs.22.5 crore is requested from Ministry under OH-35. The Building works Committee reviewed the proposal and recommended to FC & BoG.

x	Provision of cycle and pedestrian path with lighting and seating amenities on southern side of Main Avenue road	Rs 0.5 crore
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Many of the students are using bicycles for their movement within the campus. While moving in the main avenue road students are facing difficulty especially during the peak hours due to movement of faculty members vehicles such as cars and bikes. Also, there is a considerable vehicles used by Staff of the Institute. The northern side of the Main Avenue Road is already provided with cycle path and walking path with few amenities such as granite sitting benches and lights. This northern side path is very effective in one directional movement. A similar pathway in southern side of main avenue road will provide safe and secured path of pedestrian and cyclist. Hence, it is proposed to provide paver block for cycle path parallel to main avenue road (i.e Library to Architecture department) for a length of 950 m southern side of the main avenue road with a width varies from 2m to 3m depends on the space availability without disturbing the existing trees. The work includes providing paver block, seating arrangement, light provisions, etc,. Hence, the additional cost of Rs.0.5 crore is requested from Ministry under OH-35. The Building works Committee reviewed the proposal and recommended to FC & BoG.

RESOLUTION RESOLVED THAT Proposal for item no: 3 (i) to 31/B&WC/2023/3 (x) are recommended to FC & BoG.

RATIFICATION

ITEM No.4. PROPOSALS FOR RATIFICATION OF ADDITIONAL EXPENDITURE IN THE WORKS BY CPWD

The Institute has been engaging CPWD in the construction of different Civil Structures and Electrical works in the campus. It was observed that till 2016, lumpsum amounts were transferred to CPWD for different projects and reconciliation was not carried out for a long time.

It was found that some of the works which were executed in the 2006-2016 time frame, the actual expenditure was more than the approved expenditure by the BWC/FC/BoG. Hence, the following items are brought to the BWC for ratification. The expenditure for the works [Item no 4(a) to 4(f)] are already incurred except the Item no 4(g). Hence, the following works are ratified and recommended to FC & BoG.

a	Additional expenditure for "Construction of Multipurpose Hall" - Rs.2.76 crore
b	Additional expenditure for "Construction of Dining Hall with seating capacity 350 No's at Amber hostel"- Rs.0.44 crore
c	Additional expenditure for "Conversion of OH Lines into UG Cable for Street lights and Service connections"- Rs.0.25 crore
d	Additional expenditure for "Purchase of 750 kVA DG set at NIT, Trichy"- Rs.1.22 crore
e	Additional expenditure for "Rewiring of 9 nos. of hostels including Coral, Opal A, B, C, Coral and Jade Hostel" Rs.2.27 crore
f	Additional expenditure for "Augmentation of LT Electrical installation at various buildings" at NIT, Trichy - Rs.0.29 crore -
g	Additional expenditure for "Providing AC for Barn hall" at NIT, Trichy - Rs.0.21 crore

The Building and Works Committee reviewed the above works and recommend to the Finance Committee for ratification.

RESOLUTION RESOLVED THAT Proposal for item no: 4 (a) to 31/B&WC/2023/4 (g) are recommended to FC & BoG.

ITEM NO. 5 REPORTING ITEMS

i) REPORTING OF THE WORKS EXECUTED BY THE ESTATE MAINTENANCE DEPARTMENT FROM 01.11.2022 to 31.01.2023.

The list of works (Completed & Paid, Completed, In Progress and Approved) executed by EMD were noted, as given in Annexure-F of the Agenda.

ii) PROGRESS REPORT OF VARIOUS CONSTRUCTION WORKS ENTRUSTED TO CPWD

a) Construction of Girls Hostel (G+2) 125 Double Seated Rooms - OPAL F Block:

The building is handed over by CPWD. The students are allotted in the hostel.

b) Vertical expansion of Girls hostel (Opal 'F' block – two floors)

The building is handed over by CPWD. The students are allotted in the hostel.

c) Vertical expansion of Lecture Hall complex:

The Administrative approval for Vertical expansion of Lecture Hall complex was entrusted to CPWD on Nov-2019. The actual work commenced on Jun-2020 with a scheduled completion of Jun-2021. The finishing activities like painting and other fixtures are under progress. Separate AA was given for fixing the Stainless grill in second floor and CPWD has floated separate tender for the same. However, due to aesthetic appearance as similar to first floor, it was decided to provide only handrail with one feet height from corridor parapet wall. There was a saving in the tendered quantity for Stainless steel and it is decided to provide safety grill around the MiG Aircraft donated by Indian Airforce to NITT. Even after provided the safety grill, the overall quantity will not exceed the tendered quantity and estimated cost.

d) 506 seated Amethyst boy's hostel:

The Administrative approval for 506 seated AMETHYST boys' hostel was entrusted to CPWD on Jan-2021. The actual work commenced in Feb-2022 with a scheduled completion of Sep-2023. The construction activities are almost completed and few electrical and finishing work are in progress. The CPWD has committed to complete the entire work by the end of July-2023. The Hostel authority is involved in the completion of finishing activities.

Fortnight review meetings are held and CPWD has been informed to speed up the ongoing works.

RESOLUTION
31/B&WC/2023/5

(i) RESOLVED THAT the (i) works executed by the Estate Maintenance Department from 01.11.2022 to 31.01.2023

(ii) Progress of various construction works entrusted to CPWD be noted.

The Meeting ended with vote of thanks by the Chair.



Member Secretary



Chairperson

