**PROJECT REPORT ON CONSTRUCTION OF**

**ACADEMIC COMPLEX BUILDING AT**

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**ABSTRACT**

National Institute Of Technology, Andhra Pradesh permanent campus construction has been started on January 2019 and completed nearly 80 percent of the initial phase 1A buildings. It included Academic building. Hostels, Staff Quarters etc. But due to accommodation problems faced by pre 2019 batch students, construction of hostels and mess buildings are made top most priority, resulting in the delay of construction of staff quarters. Other factors like shortage of materials, skilled labor and unfavorable weather conditions led to much further delay. However as of November 26, 2019, the first two blocks of staff quarters at boys and girls hostel respectively are approaching near 100 percent completion leaving only minor civil works as pending. Thanks to prefabrication technology, it made a significant and positive impact on the time of completion and quality of the buildings. Several modern methods like using prefabricated walls, bricks, remote cranes etc… are deployed to quicken the process of construction. In spite of this the project has extended its date of completion beyond its prescribed deadline.

**INDEX**

**CONTENT Page no 1. Introduction………………………………………………….……………………………..4.** …1.1. Background details of the project….……………….…………………………4 …1.2. Requirement for Academic Block….……………….…………………….…4

**2. Construction Process.…………………..…….……………………………………….5** ….2.1. Resources Allocation……………………….…………………………….………..5 ….2.2. Construction Procedure…………………….……………………………………..5 ….2.3. Obstacles encountered during construction…....………………………5 ….2.4. Precautionary measures……………………………….........……………......5

**3. Project status……………………………………………………….……………………..6**

…3.1. Current status………………………………………………………………………......6 …3.2. Expected state of project in future…………………………………………….6

**3. Conclusion…………………………………………………………………………………..7**

**4. References…………………………………………………………………………………. 7**

**1. Introduction.**

National Institute of Technology, Andhra Pradesh is the 31st institute in chain of the centrally funded government educational institutions for higher technical education in India. It is a result of the formation of new enactment law for the state Andhra Pradesh. The foundation stone was laid in 2015 by Former HRD minister Mrs. Smriti Irani and Former CM of Andhra Pradesh Mr. Chandra Babu Naidu at land allocated in Tadepalligudem Aerodrome.

* 1. **. Background details of the project .**

Although the foundation stone was laid in 2015, the actual process of construction began only in 2018. This is because of delay in project tendering process and acquisition of land.

After completing the acquisition of land and getting approval from other departments, the central cabinet approved the project to go ahead. The project was undertaken by Central Public Works Department (CPWD) and the winner of tender process BG SHIRKE Pvt .Ltd Construction Company undertook the construction activity on January 2018. The whole project was divided into two primary phases namely 1A and 1B. Phase 1A includes Academic Block -1, Laboratory complex-1, Girls and Boys Hostel Blocks, Mess Blocks, Canteen Building, Staff Quarters & Sports stadium. As of 26th November 2019, the first five categories of buildings are completed 90 percent and are put into partial usage.

* 1. **Requirement of Academic Block.**

As the institute draws students and professors from all across the India, it is necessary to accommodate all students and faculty with all necessary facilities. Since most students studying at universities require assistance from professors, Academic complex inside the campus will enable students to access institutes resources to them anytime. Students can

Engage in academic activities more often if it is within the campus.

**2. Construction Process.**

The construction process of this project is executed in four major steps as described below. It includes resource allocation, construction procedure, studying possible obstacles and implementing prevention measures

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1. **Resource allocation**

NIT AP permanent staff quarters have been allocated a budget of 50 crores rupees and a land area of 60 acres. Four remote cranes, excavators, and material movers along with sufficient amount of workforce were allocated for primary construction activity

1. **Construction procedure.**

Primary foundation was laid using normal cement gravel based concrete mixture. Preliminary structures were constructed using prefabricated walls and bricks. All major electrical wiring and other equipment are mostly installed underground. Carpentry, furniture etc... were handed over to a third party company.

1. **Obstacles encountered during construction.**

The construction faced severe delay due to unfavorable weather conditions and sand shortage. The workers and construction employees who come from other states face a lot of inconvenience in communicating with locals. Skilled labor shortage has hampered the construction activity due to utilization of modern machines and methods utilized for construction.

1. **Precautionary measures.**

To maintain a continuous progress in construction activity excess material buffers are being maintained near the factory. The construction company has deployed its own own security personnel to safe guard from any intrusion which may delay building process.

**3. Project Status.**

1. **Current Status.**

All primary civil works for first block are completed except few major electrical works like power transmission and internal wiring of the buildings. Painting the building has also been completed up to 60 percent in total. Few minor works like carpentry, installing air conditioning and other amenities for have to be installed.

1. **Expected state of in the project in future.**

The project is expected to be completed by the last day of the year 2019 as per the data given by CPWD official website. The academic block may be ready for usage by next year 2020.

**4. Conclusion.**

NIT AP permanent campus Academic Block are constructed as a primary priority after Hostel blocks with nearly 30 percent of resources being allocated to it. Prefabrication technology has enabled fast build process and quality. Although the project is encountering several obstacles, it is being completed with only a delay of just 2 months. The project could have been started earlier if all approval and allocation processes are quick enough which would have benefitted everyone studying and teaching in the institute.

***5. References.***

*1.* ***^*** [***http://nit.ac.in/nitandhra/***](http://nit.ac.in/nitandhra/)