



Criterion 1 – Curricular Aspects

Key Indicator	1.3	Curriculum Enrichment	
Metric	1.3.4	Percentage of students undertaking field projects / research projects	
		/ internships (Data for the latest completed academic year)	

B.TECH CIVIL ENGINEERING

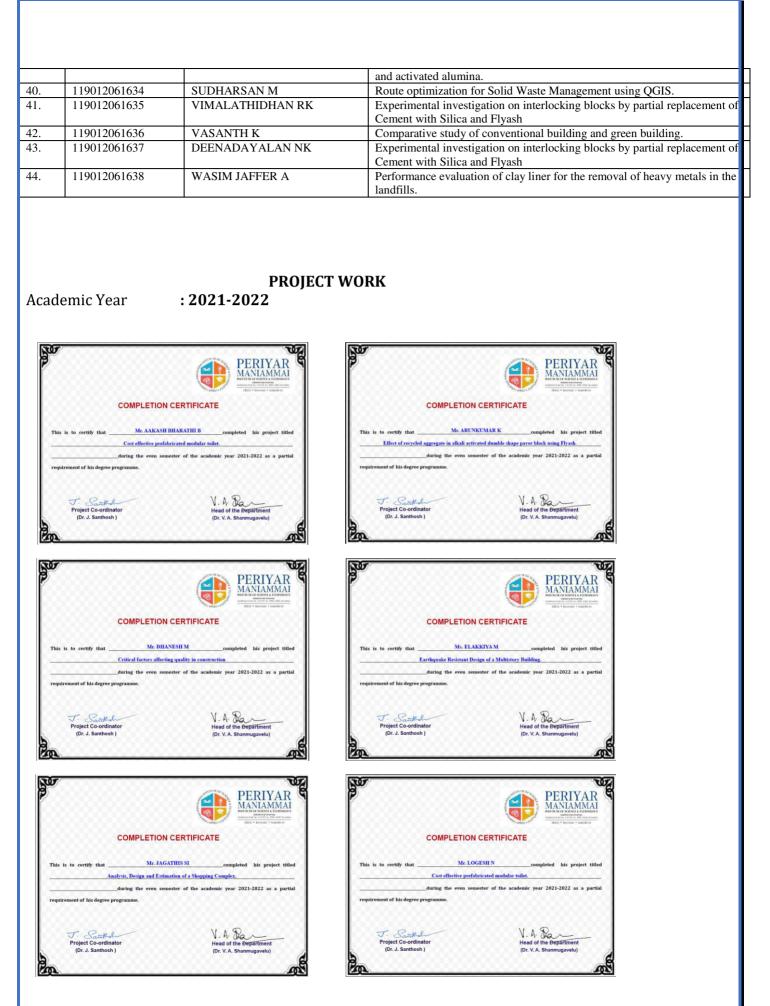
S.No	Description
1.	List of students undertaking the field projects/ research projects / internship program-
	wise in the last completed academic year along with the details of title, place of work
	etc.
2.	• Internship / research projects completion certificate from the organization where
	internship / research projects was completed along with the duration
	• Report of the field visit / sample photographs of the field visit / permission letter
	from the competent authority will be considered.

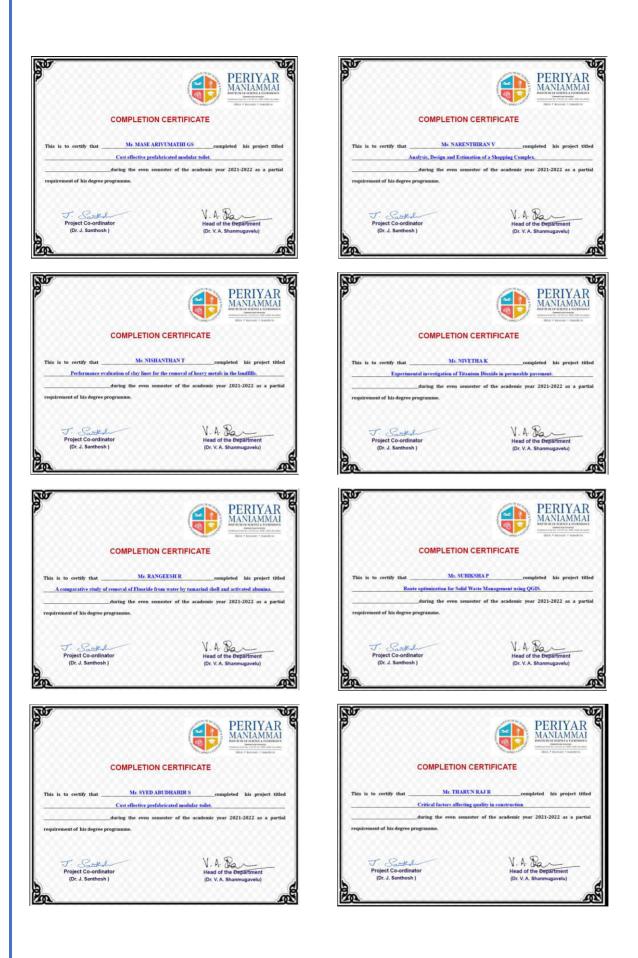
Summary

Field / Research Project	Internship / IPT	Field / Industrial visit	Total
44	1 / 97	29	171

List of students

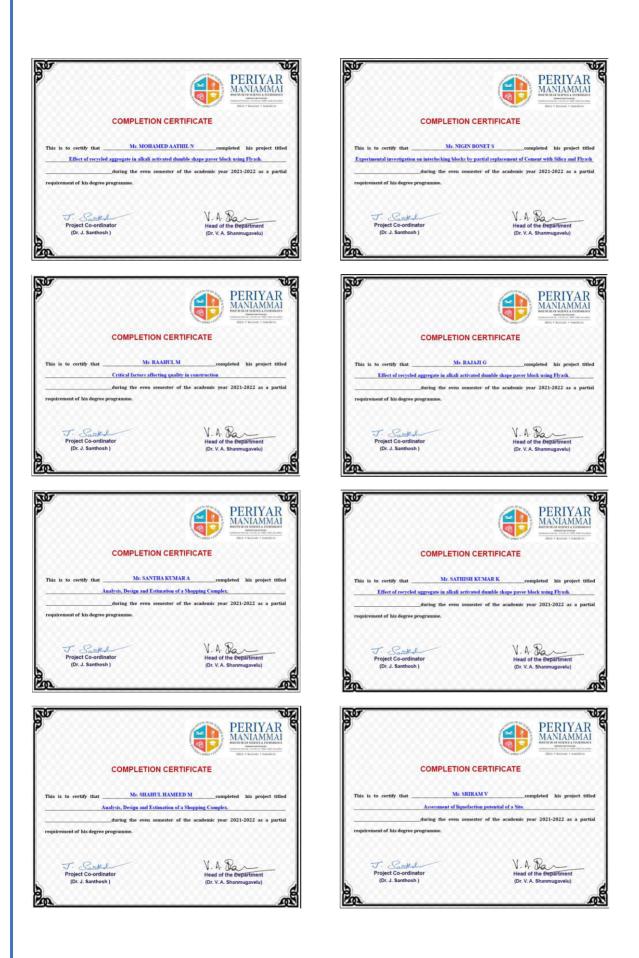
S. No	Reg No	Student Name	Title of the project
1.	1180120111090	AAKASH BHARATHI B	Cost effective prefabricated modular toilet.
2.	1180120111091	ARUNKUMAR K	Effect of recycled aggregate in alkali activated dumble shape paver block
	1100100111000		using Flyash.
3.	1180120111092	DHANESH M	Critical factors affecting quality in construction
1.	1180110111093	ELAKKIYA M	Earthquake Resistant Design of a Multistory Building.
5. 5.	1180120111095	JAGATHIS SI	Analysis, Design and Estimation of a Shopping Complex.
o. 7.	1180120111096 1180120111097	LOGESH N MASE ARIVUMATHI GS	Cost effective prefabricated modular toilet. Cost effective prefabricated modular toilet.
7. 3.	1180120111097	NARENTHIRAN V	Analysis, Design and Estimation of a Shopping Complex.
s. ∂.	1180120111098	NISHANTHAN T	Performance evaluation of clay liner for the removal of heavy metals in t
			landfills.
10.	1180110111100	NIVETHA K	Experimental investigation of Titanium Dioxide in permeable pavement.
1.	1180120111101	RANGEESH R	A comparative study of removal of Fluoride from water by tamarind shell and activated alumina.
2.	1180110111102	SUBIKSHA P	Route optimization for Solid Waste Management using QGIS.
3.	1180120111103	SYED ABUDHAHIR S	Cost effective prefabricated modular toilet.
4.	1180120111104	THARUN RAJ R	Critical factors affecting quality in construction
15.	1180120111105	VYTHEYANATHAN CT	Route optimization for Solid Waste Management using QGIS.
6.	1180120111106	SRIKANTH G M	Performance evaluation of clay liner for the removal of heavy metals in t landfills.
7.	119012061610	AJAI RAHUL P	Analysis, Design and Estimation of a Shopping Complex.
8.	119012061611	AKILAN M	A comparative study of removal of Fluoride from water by tamarind she and activated alumina.
9.	119012061612	ARAVIND K	Comparative study of conventional building and green building.
20.	119012061613	ARUNPRASATH T S	Performance evaluation of clay liner for the removal of heavy metals in t landfills.
21.	119012061614	BARATH B	Comparative study of conventional building and green building.
22.	119012061615	BUBESH B	Assessment of liquefaction potential of a Site.
23.	119012061616	DEVARAM V	A comparative study of removal of Fluoride from water by tamarind she and activated alumina.
24.	119012061617	GANAPATHI K	Assessment of liquefaction potential of a Site.
25.	119012061618	GOVINDARAJ K	Critical factors affecting quality in construction
26.	119012061619	HARISH V	Performance evaluation of clay liner for the removal of heavy metals in t landfills.
27.	119012061620	KABILAN S	Route optimization for Solid Waste Management using QGIS.
28.	119012061621	KARTHIC BHARATHI R	A comparative study of removal of Fluoride from water by tamarind she and activated alumina.
29.	119012061622	MANIKANDAN M	Comparative study of conventional building and green building.
30.	119012061623	MANIMARAN B	Experimental investigation on interlocking blocks by partial replacement Cement with Silica and Flyash
31.	119012061624	MOHAMED AATHIL N	Effect of recycled aggregate in alkali activated dumble shape paver block using Flyash.
32.	119012061625	NIGIN BONET S	Experimental investigation on interlocking blocks by partial replacement Cement with Silica and Flyash
33.	119012061626	RAAHUL M	Critical factors affecting quality in construction
34.	119012061627	RAJAJI G	Effect of recycled aggregate in alkali activated dumble shape paver block using Flyash.
35.	119012061628	SANTHA KUMAR A	Analysis, Design and Estimation of a Shopping Complex.
36.	119012061629	SATHISH KUMAR K	Effect of recycled aggregate in alkali activated dumble shape paver block using Flyash.
37.	119012061630	SHAHUL HAMEED M	Analysis, Design and Estimation of a Shopping Complex.
38.	119012061631	SRIRAM V	Assessment of liquefaction potential of a Site.
39.	119012061633	SYED SAMSUDEEN J	A comparative study of removal of Fluoride from water by tamarind shell













Internship - List of Student

S. No	Reg No	Student Name	Batch	Year	Remarks
1.	1190120111111	S. HANUPRIYAN	2019- 2023	III	2022 Globalink Research Internship – MITACS Host University: University of Northern British Columbia – Prince George

IPT - List of Students

Sl. No Reg. No Name	Name and address of the company	
8		

1.	1190120111107	AATHAVAN E	SURA BUILDERS, 16/93, Palappalayam, Ingur Po, Perundurai, Erode - 638052
2.	1190120111108	CHANDRU R	PRAYOJANA CONSTRUCTION MANAGEMENT TRAINING INSTITUTE
3.	1190120111109	DEVA PRAKASH R K	PRAYOJANA CONSTRUCTION MANAGEMENT TRAINING INSTITUTE
4.	1190120111110	DINESH J	NEELA CONSTRUCTION, NO.2 BALAN NAGAR, ORATHANADU -PO, THANJAVUR DIST - 614625
5.	1190120111112	HARIRITHIK P	M.M.A CONSTRUCTIONS & BUILDERS, 41, sri Chola Avenue, vilar byepass, Greencity, Thanjavur - 613006
6.	1190120111113	JAISHEELAN M	M.S.P Civil Consultancy, Dharmapuri
7.	1190110111114	KEERTHIKA P	Tamilnadu water Resource Department, Needamangalam
8.	1190120111115	MOHAMED ABBAS M	M.M.A CONSTRUCTIONS & BUILDERS, 41, sri Chola Avenue, vilar byepass, Greencity, Thanjavur - 613006
9.	1190120111116	MOHAMED ABDULLAH E	CITY REBAR SOLUTION, ON TIME 2/24, KONASAMUDRAM - PO, EDAPPADI - TK, SALEM -DIST.
10.	1190120111117	MOHAMED ASHIQ NATHAR M	ARFA Constructions, 26, Subramaniya Nagar, Pudukkottai
11.	1190120111118	MOHAMED FAYAZ F	ARUN CONSTRUCTION, 126, Thai Street, Ramanathan Nagar, Thiruvarur-6100
12.	1190120111119	MOHAMED HAFIZ A	TAJ AL HAFIZ, Technical & Cleaning Services L.L.C - Dubai, UAE
13.	1190120111120	MOHAMED IJAZ N	BEE BUILDERS, NO.20 AASHIKA COMPLEX, 1ST STREET, THIRUVALLUVAR NAGAR PUDUKKOTTAI - 622001
14.	1190120111121	PRAVEEN V	SURA BUILDERS, 16/93, Palappalayam, Ingur Po, Perundurai, Erode - 638052
14.	1190120111121	SAFEEN ABDULLA M	AZAATH BUILDERS, 854A, ECR AMMAPATTINAM
16.	1190120111122	SATHIYAPRIYA S	SRI SAKRA PROMOTORS, 156, Dindigul road, Palani - 624601
17.	1190120111124	SIVACHANDRAN S	VARNAM BUILDERS, 1/76, THAMBIKOTTAI KEELAKADU, MUTHUPET - 614704
18.	1190120111125	SIVAPRAKASH M	S.S Construction, 2/217-14(Saibaba comples, sornakkadu, Peravurani -614804
19.	1190120111126	TAMIZH A.S	V - CONSTRUCTIONS, 156 - D, Udayan Complex, Thiru nagar, Palani, 624601
20.	1190120111128	VARUN R	NEELA CONSTRUCTION, NO.2 BALAN NAGAR, ORATHANADU -PO, THANJAVUR DIST - 614625
21.	1190110111129	CHADHURYA P	Ahamidi, Kuwait, Fahaheel, Kuwait
22.	1190110111130	RUTHRA SONALI R	ARUN CONSTRUCTION, 126, Thai Street, Ramanathan Nagar, Thiruvarur-6100
23.	1190110111131	SHAMILI A	ARUN CONSTRUCTION, 126, Thai Street, Ramanathan Nagar, Thiruvarur-6100
24.	120012061639	BALA GUNAA B	ARUN CONSTRUCTION, 126, Thai Street, Ramanathan Nagar, Thiruvarur-6100
25.	120012061640	JAINULHARRISH S	ARFA Constructions, 26, Subramaniya Nagar, Pudukkottai
26.	120012061641	JALAL HUSSAIN J	STRUCTUTRAL CONSULTANT, 238, Marutham new housing unit (Opp), Thanjavur
27.	120012061642	JOHN VENISTON P	VEDO REDO CONSTRUCTION, No.15 MS Nagar, Thanjavur - 613005
28.	120012061643	PREM KUMAR S	NEELA CONSTRUCTION, NO.2 BALAN NAGAR, ORATHANADU -PO, THANJAVUR DIST - 614625
29.	120012061644	ROSARIO A	VEDO REDO CONSTRUCTION, No.15 MS Nagar, Thanjavur - 613005
30.	120012061645	SANTHOSH K	VEDO REDO CONSTRUCTION, No.15 MS Nagar, Thanjavur - 613005
31.	120012061646	SURYA V	VEDO REDO CONSTRUCTION, No.15 MS Nagar, Thanjavur - 613005
32. 33.	120012061647 120012061648	MOHAMED NOWFAL S NAVEEN S	VEDO REDO CONSTRUCTION, No.15 MS Nagar, Thanjavur - 613005 VEDO REDO CONSTRUCTION, No.15 MS Nagar, Thanjavur - 613005
<u>34</u> .	120012001048	DHANAVARSHINI R	NLC INDIA LIMITED, NEYVELI -607803
35.	1200110111132	DINESH T	K.M.P Construction, 69, Thiru Nagar, Srinivasapuram, Thanjavur.
36.	1200120111134	FAYAS AHAMED M	VVR Construction, No. 60 A, 15, Mandapa street, Thiruvaiyaru,
37.	1200120111135	MAHENDRASETHUPATHY A	M.M.A CONSTRUCTIONS & BUILDERS, 41, sri Chola Avenue, vilar byepass, Greencity, Thanjavur - 613006
38.	1200120111137	MURALIDHARAN E	K.M.P Construction, 69, Thiru Nagar, Srinivasapuram, Thanjavur.
39.	1200110111138	OLIVADHANI V	NLC INDIA LIMITED, NEYVELI -607803
40.	1200110111139	PREETHI K	NLC INDIA LIMITED, NEYVELI -607803
	1200110111140	SARIGHASRI A	NLC INDIA LIMITED, NEYVELI -607803
41.	1 10001001111111	SIVA SUGANTHAN K	M.M.A CONSTRUCTIONS & BUILDERS, 41, sri Chola Avenue, vilar byepass,
<u>41.</u> 42.	1200120111141		Greencity, Thanjavur - 613006
42.			
	1200120111141 1200120111142 1200120111143	SREE SAILESH E NIRMALKUMAR K	Greencity, Thanjavur - 613006 K.M.P Construction, 69, Thiru Nagar, Srinivasapuram, Thanjavur. VVR Construction, No. 60 A, 15, Mandapa street, Thiruvaiyaru,

•	1200120131012	VIGNESH S	K.M.P Construction, 69, Thiru Nagar, Srinivasapuram, Thanjavur.
'.	121012061649	AADHAVAN B	Himeshwar Engineering Work, No. 10/30, Balan Street, Vaduvur thenpathi, Mannargudi Tk, Thiruvarur - 614019
8.	121012061650	ABINANDHAN V	WILSON CONSTRUCTION, 20, Pappa Nagr extension, Jamal Hussian 2 nd Street
9.	121012061651	ABISHAKE D	NK Road, Thanjavur - 613006 Himeshwar Engineering Work, No. 10/30, Balan Street, Vaduvur thenpathi, Mannargudi Tk, Thiruvarur - 614019
50.	121011061652	AKILANDESWARI S	J.B.Builders, Kolathumetu Street, Thanjavur
1.	121012061653	ARUN S	M.M.A.Constructions & Builders
1.	121012001055	AKUNS	41, Sri Cholo Avenue, Thanjavur
52.	121012061654	ARUNKUMAR V	UNDREAMT DESIGNS, 4, Rukkumani Palamai middle street, mannargudi
53.	121012061655	BASITH RAHMAN J	M.M.A.Constructions & Builders 41, Sri Cholo Avenue, Thanjavur
54.	121012061656	BHARATHI A	Himeshwar Engineering Work, No. 10/30, Balan Street, Vaduvur thenpathi, Mannargudi Tk, Thiruvarur - 614019
55.	121012061657	GOKULA KRISHNAN S B	SKY-TECH BUILDERS, Er. Rajesh, M.E., (Structural)978, Thillai Nagar, Vilar
56.	121012061659	CODINATU D	Road, Thanjavur - 613006 K.M.P Construction, 69, Thiru Nagar, Srinivasapuram, Thanjavur.
	121012061658	GOPI NATH R	
57.	121012061659	HARIHARA PAVITHRAN S	SMART BUILDERS, B43, Agasthiyar Street, Kalimuthu Nagar, Kumbakonam.
58.	121011061660	HARSHINI R S	GLIM ARCHITECTS & INTERIER, C3, PG'S NGK Apartment, Mary's corner, Nanjikottai road Thanjavur - 613001
59.	121012061662	KAVIMUGIL G	M.M.A.Constructions & Builders 41, Sri Cholo Avenue, Thanjavur
60.	121012061663	KEERTHIVASAN S	Periyar Consultancy
51.	121012061664	KISHORE E	Periyar Consultancy
52.	121012061665	MADHAN RATHINAM K	M.M.A.Constructions & Builders 41, Sri Cholo Avenue, Thanjavur
63.	121012061666	MANORANJAN S	WILSON CONSTRUCTION, 20, Pappa Nagr extension, Jamal Hussian 2 nd Street NK Road, Thanjavur - 613006
54.	121012061667	MOHAMED ANSAL S H	M.R.S builders and promoters, Ezhil nagar, M.C road, Thanjavur
65.	121012061668	MOHAMED HUSSAIN K	Chola Construction, Plot No. 11, Venkateswara Nagar, Keela Vasal Chavady, Thanjavur - 614904
56.	121012061669	MOHAMED SHAHEER M	Meera Builders, Er. S. Ibrahim, 34, Gandhiji Road, Thanjavur
67.	121012061670	PRAVEENKUMAR B	Patel Infrastructure Limited, Cholapuram
58.	121012061671	PRIJAYSH GOPIKAR J	Meera Builders, Er. S. Ibrahim, 34, Gandhiji Road, Thanjavur
<i>5</i> 9.	121012061672	RAMMOHAN S	M.M.A.Constructions & Builders
10	1010100(1(72	DANOWNACIA	41, Sri Cholo Avenue, Thanjavur
70.	121012061673	RAMNIVAS M	Himeshwar Engineering Work, No. 10/30, Balan Street, Vaduvur thenpathi, Mannargudi Tk, Thiruvarur - 614019
71.	121012061675	SANTHOSH M S	SMART BUILDERS, B43, Agasthiyar Street, Kalimuthu Nagar, Kumbakonam.
72.	121012061676	SARUN KUMAR R	WILSON CONSTRUCTION, 20, Pappa Nagr extension, Jamal Hussian 2 nd Street NK Road, Thanjavur - 613006
73.	121011061677	SHALINI M	JJR BUILDER, NO. 16, KARUNANITHI STREET, KAMARAJ NAGAR, AYIYAMANGALAM, TRICHY - 620010
74.	121012061678	SRIRAM D	Himeshwar Engineering Work, No. 10/30, Balan Street, Vaduvur thenpathi, Mannargudi Tk, Thiruvarur - 614019
75.	121012061679	SUBASH MANI BHARATHI R J	SKY-TECH BUILDERS, Er. Rajesh, M.E., (Structural)978, Thillai Nagar, Vilar Road, Thanjavur - 613006
76.	121012061680	SUGAN R	Himeshwar Engineering Work, No. 10/30, Balan Street, Vaduvur thenpathi, Mannargudi Tk, Thiruvarur - 614019
7.	121012061681	SUTHARSAN J	VGR Construction, Nearby Yahappa School, Thanjavur
78.	121012061682	VEERAMANI K	MRS Builders and Promoters Ezhil Nagar, MC road Thanjavur
79.	121012061683	VENKADESH K	GRH, Himeshwar Engineering Works, Vaduvur Thenpathi, Mannangudi
80.	121012061684	VIJAY KRISHNAN R	Himeshwar Engineering Work, No. 10/30, Balan Street, Vaduvur thenpathi, Mannargudi Tk, Thiruvarur - 614019

81.	121011061685	VISHALINI V	M.M.A.Constructions & Builders 41, Sri Cholo Avenue, Thanjavur	
82.	121012061686	YASHRAJ V	Himeshwar Engineering Work, No. 10/30, Mannargudi Tk, Thiruvarur - 614019	Balan Street, Vaduvur thenpathi,
83.	121012061687	YUGABHARATHI P	Himeshwar Engineering Work, No. 10/30, E Mannargudi Tk, Thiruvarur - 614019	Balan Street, Vaduvur thenpathi,
84.	121012061688	DINESH M		
85.	121012061689	DANUSH N M	WILSON CONSTRUCTION, 20, Pappa Nagr extension, Jamal Hussian 2 ⁿ NK Road, Thanjavur - 613006	
86.	121012061690	PRASANNAVENKATESAN K S	Himeshwar Engineering Work, No. 10/30, E Mannargudi Tk, Thiruvarur - 614019	Balan Street, Vaduvur thenpathi,
87.	121012061691	PRADEEP P	Himeshwar Engineering Work, No. 10/30, E Mannargudi Tk, Thiruvarur - 614019	Balan Street, Vaduvur thenpathi,
88.	1210120111145	AMUDHAN K	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
89.	1210120111146	ARAVIND S	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
90.	1210120111147	ATHISH T	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
91.	1210120111148	BHAVIDRAN S	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
92.	1210120111149	KABILESH R	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
93.	1210120111150	MOHAMED JAFIR A	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
94.	1210120111152	RAGUL K	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
95.	1210120111153	RAM BHUAAL YADAV	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
96.	1210120111154	SUNDAR M	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
97.	1210120111155	VIGNESH ADITHYA V	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
98.	1210120111156	VISHNU A	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
99.	1210110111157	MANITHAM A E	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur
100.	1210120111158	SANJAY KUMAR S K	Er. G. DEENATHAYALAN B.E.,	Sundari Constructions Budalur

PERIYAR MANIAMMAI INSTITUTE OF SCIENCE & TECHNOLOGY DEPARTMENT OF CIVIL ENGINEERING THIRD, YEAR, A, IRT / INTERNSHIP DETAILS

THIRD YEAR -A IPT / INTERNSHIP DETAILS

DESCRIPTION

11 07 2022, Monday.

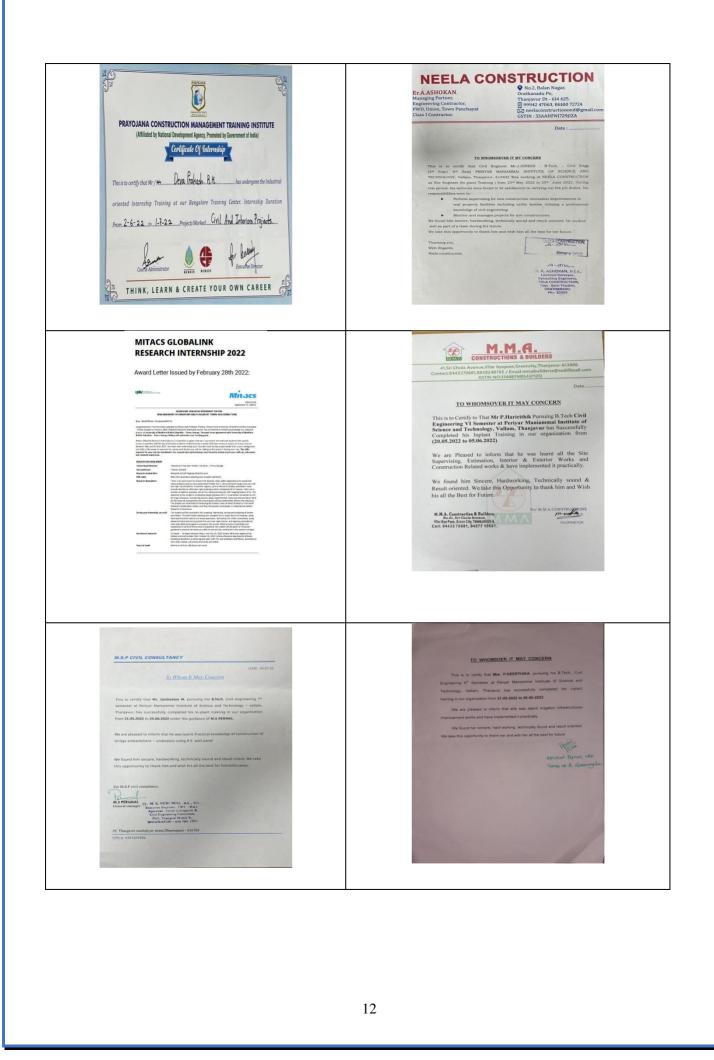
Monday.

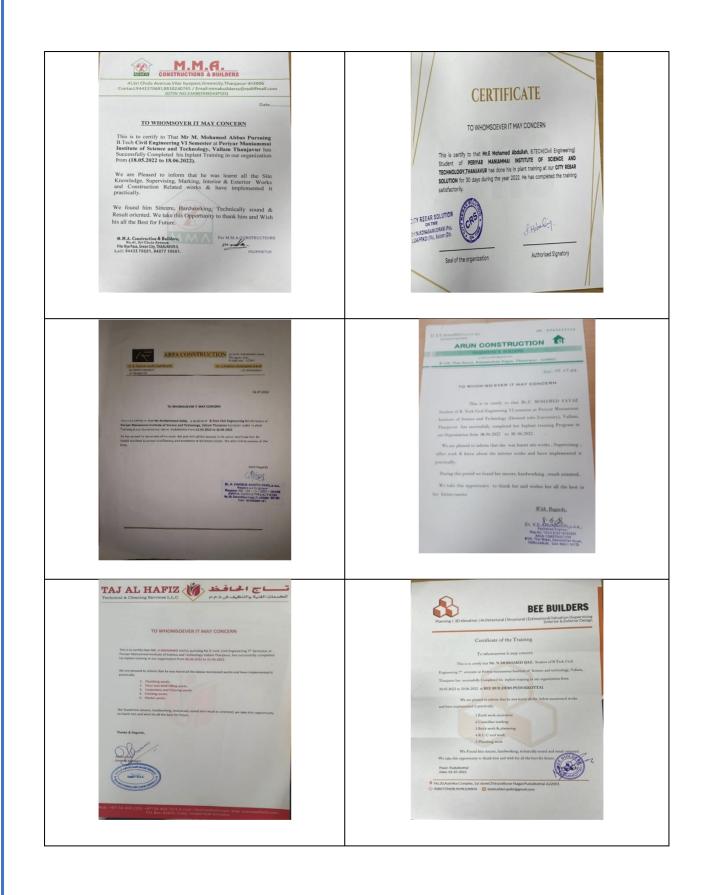
DUBLICASE

Constraint in March Concerner

This is to Contrily that McLAATHAVAN has done In-plant Training at SURA BULLIDERS in Construction of Thiravallovar Commercial Complex, Thanjavar from 2565.5022 to SMAR 2022 to SMA



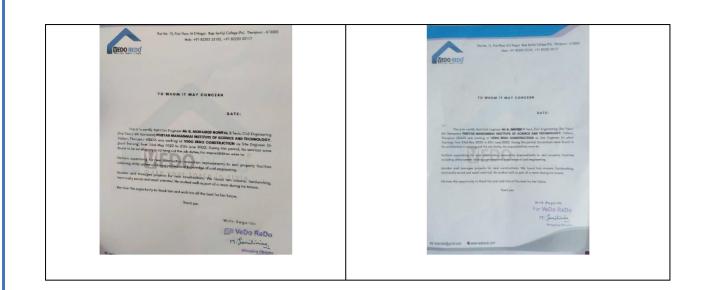








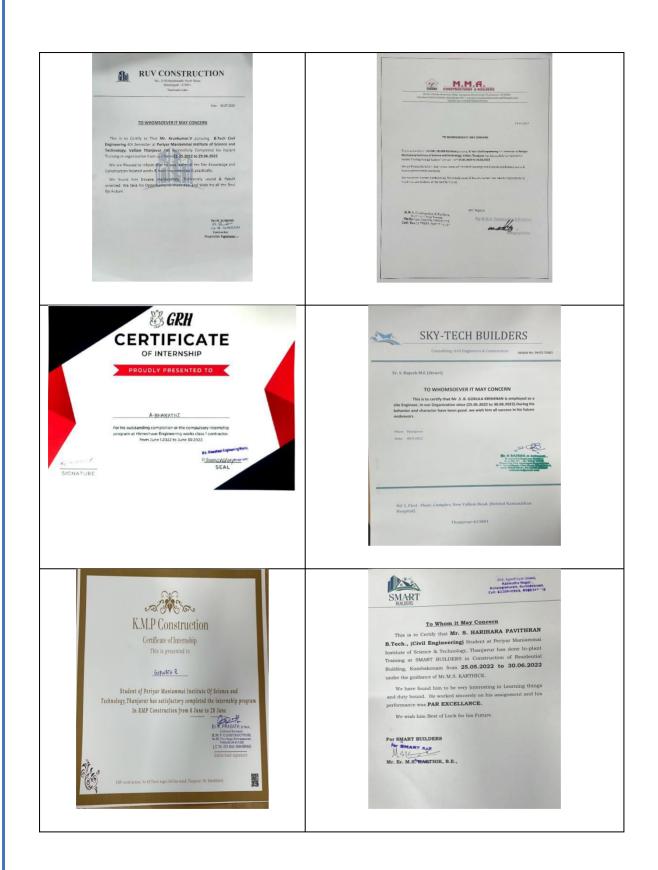




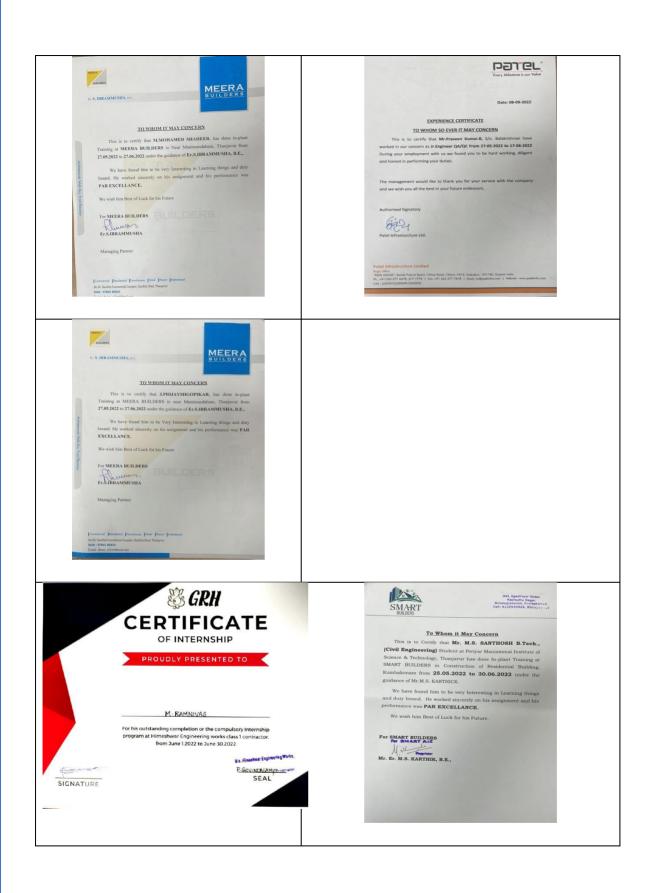


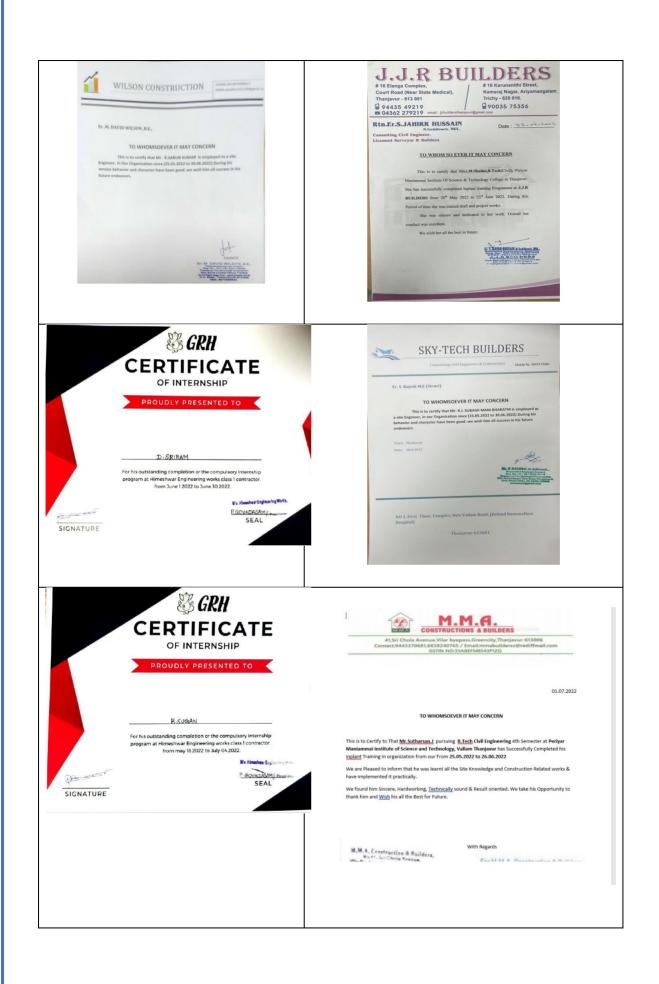






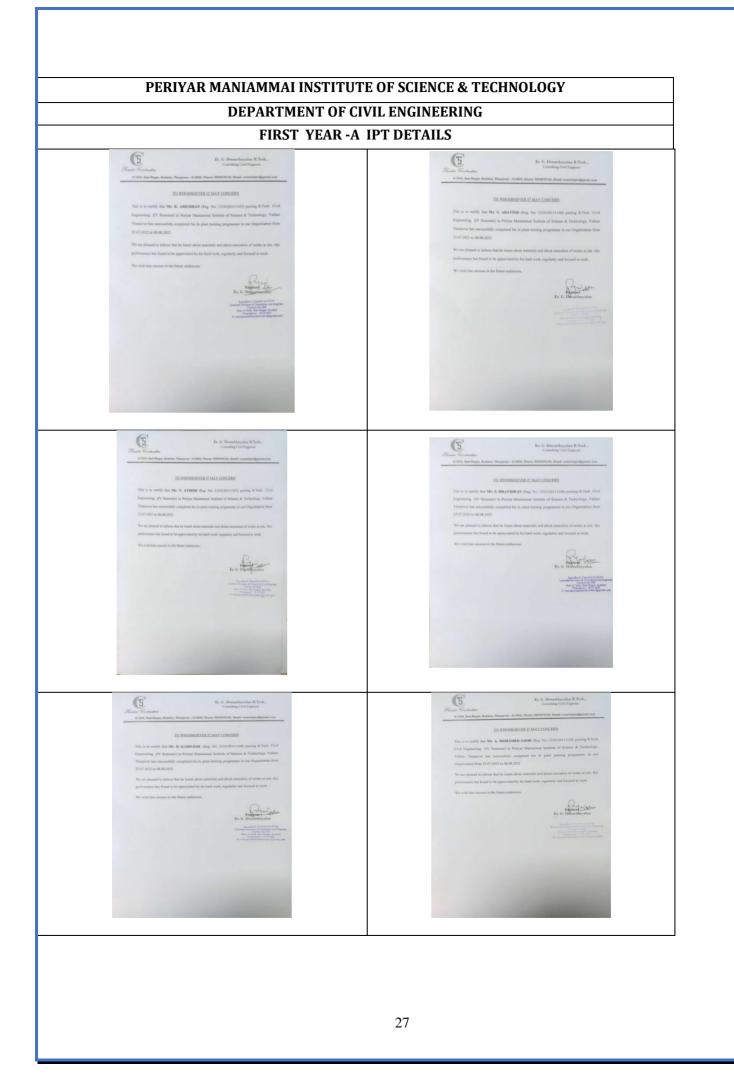


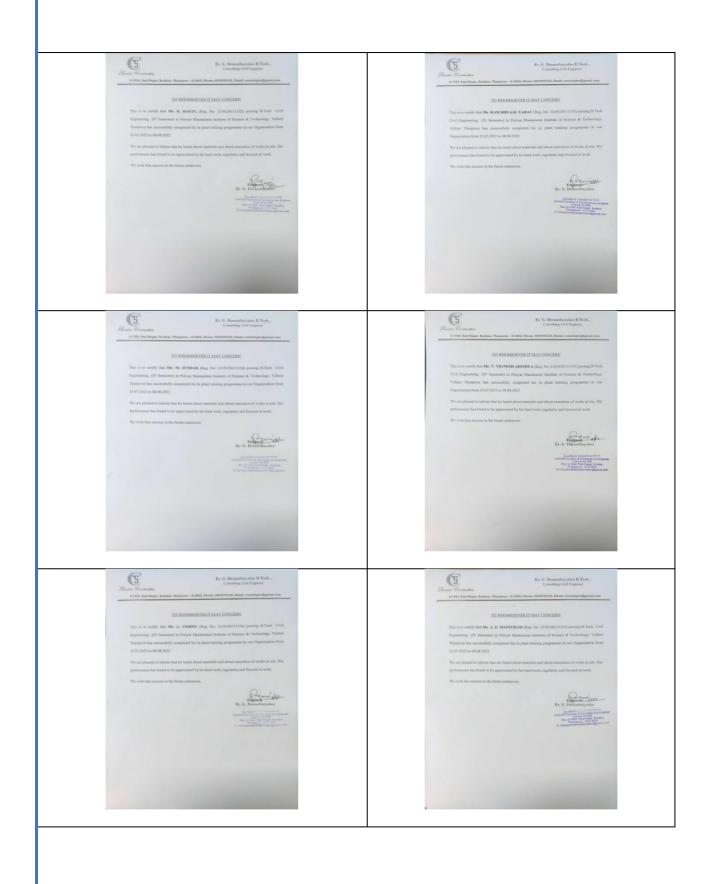












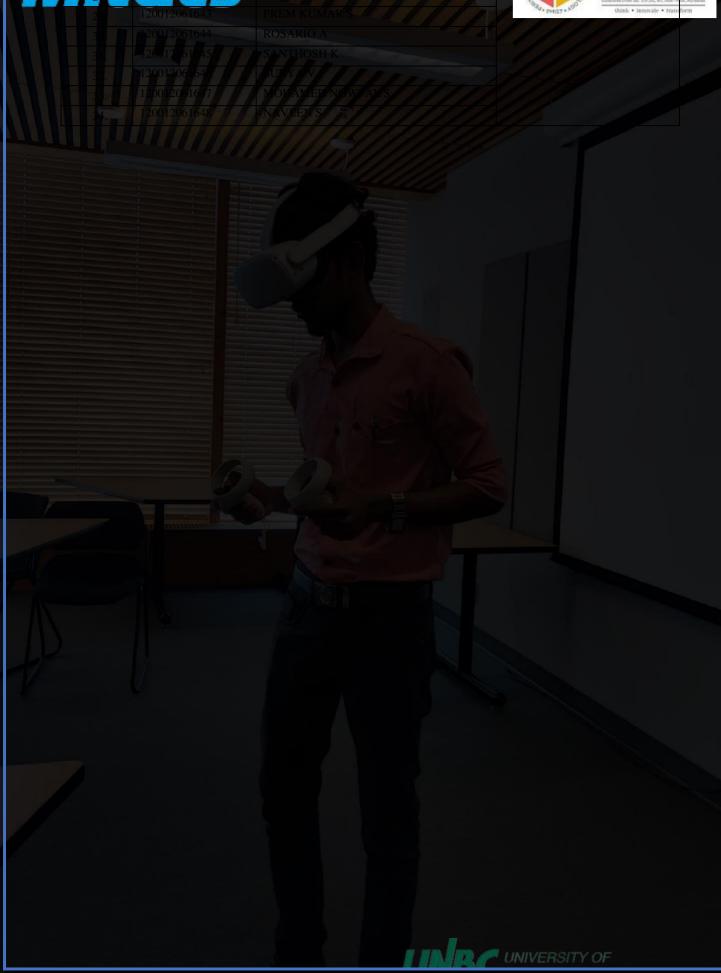
Er. G. Donasthavalan B. Toch, Genetic Searchaster		
4/1034, Rasi Ragar, Budabar, Thanjavar – 612600, Phone: 9000078123, Ernall: cosenitytes@gmidl.com		
TO WHOMSOEVER IT MAY CONCERN		
This is to certify that Mr. S. K. SANJAY KUMAR (Reg. No: 1210120111158) passing B.Tech		
Civil Engineering (IV Semester) in Periyar Maniammal Institute of Science & Technology.		
Vallam Thunjavar has successfully completed his in plant training programme in our		
Organization from 25.07.2022 to 08.08.2022		
We are pleased to inform that he learnt about materials and about execution of works at site. His		
performance has found to be appreciated by his hard work, regularity and focused at work.		
We wish him success in the future endeavors.		
E.G. Discontraction of the second sec		

Industrial Visit - List of Students

S. No	Reg.No	Student Name	Place of Visit
1.	1190120111107	AATHAVAN E	Smart City Project - Thiruvalluvar
2.	1190120111108	CHANDRU R	Shopsping Complex, Thanjavur
3.	1190120111109	DEVA PRAKASH R K	
4.	1190120111110	DINESH J	
5.	1190120111111	HANUPRIYAN S	
6.	1190120111112	HARIRITHIK P	
7.	1190120111113	JAISHEELAN M	
8.	1190110111114	KEERTHIKA P	
9.	1190120111115	MOHAMED ABBAS M	
10.	1190120111116	MOHAMED ABDULLAH E	
11.	1190120111117	MOHAMED ASHIQ NATHAR M	
12.	1190120111118	MOHAMED FAYAZ F	
13.	1190120111119	MOHAMED HAFIZ A	
14.	1190120111120	MOHAMED IJAZ N	
15.	1190120111121	PRAVEEN V	
16.	1190120111122	SAFEEN ABDULLA M	
17.	1190110111123	SATHIYAPRIYA S	
18.	1190120111124	SIVACHANDRAN S	
19.	1190120111125	SIVAPRAKASH M	
20.	1190120111126	TAMIZH A.S	
21.	1190120111128	VARUN R	
22.	1190110111129	CHADHURYA P	
23.	1190110111130	RUTHRA SONALI R	
24.	1190110111131	SHAMILI A	
25.	120012061639	BALA GUNAA B	
26.	120012061640	JAINULHARRISH S	
27.	120012061641	JALAL HUSSAIN J	







MITACS GLOBALINK RESEARCH INTERNSHIP 2022

Award Letter Issued by February 28th 2022:





2022-03-01 Application ID: 109842

GLOBALINK RESEARCH INTERNSHIP AWARD DISBURSEMENT INFORMATION AND PLACEMENT TERMS AND CONDITIONS

Dear HANUPRIYAN SELVAGANAPATHI,

Congratulations! You have been selected by Mitacs and Professor Thomas Tannert from University of Northern British Columbia – Prince George to receive a 2022 Globalink Research Internship award. You are therefore invited to participate in a research project at University of Northern British Columbia – Prince George. Pursuant to an agreement with University of Northern British Columbia – Prince George, Pursuant to an agreement with University of Northern British Columbia – Prince George, Pursuant to an agreement with University of Northern British Columbia – Prince George, Mitacs will administer your funding grant.

Mitacs Globalink Research Internship is a competitive program that pairs top-ranked international students with specific research expertise with faculty at Canadian academic institutions for a twelve (12) week research project of mutual interest between May and October 2022. You have been selected by your Canadian host faculty project leader due to your background and skills in the research area and the unique contribution you will be making to the research during your stay. The skills required for your role (as described in the research description below) were found to clearly match your skills set, education, and research experience.

Research internship details

University/Institution:	University of Northern British Columbia – Prince George
Host professor:	Thomas Tannert
Research project title:	Research on Self-Tapping-Wood-Screws
NOC code:	4012 Post-secondary teaching and research assistants
Research description:	There is an acute need for research to develop value-added applications for wood and wood products such as Cross-Laminated-Timber (CLT). One prominent target area are mid- and high-rise structures. In seismic regions, such as Western Canada, connectors must provide ductility to otherwise rigid building systems composed of CLT panels. There are a number of options available, one of the most promising are Self-Tapping-Screws (STS). The objective of the project is to develop design guidance for CLT assembles connected by STS for large structures, considering seismic loads. Experimental, numerical and analytical work on the material, component and system levels will be combined to achieve this objective. The project can contribute to increasing the market share of wood products in the North American construction sector, and thus, the project contributes to reducing the carbon footprint of structures.
During your internship, you will:	The student will be involved in the sampling, fabricating, testing and analyzing of timber assemblies. This will involve selecting test samples from a larger batch of material, using hand and machine tools to cut wood specimens, fabricating the timber assemblies, using advanced materials test equipment to carry out experiments, and applying spreadsheet tools and statistical programs to analyse the results. While previous knowledge and experience in some of these areas is expected, the student will be given all necessary guidance to acquire the necessary skills to successfully contribute to the research project.
Duration of research:	12 weeks — to begin between May 1 and July 31, 2022 (unless otherwise approved by Mitacs) and end no later than October 31, 2022 (unless otherwise approved by Mitacs). Shortened durations must be agreed upon with the host professor and Mitacs. Durations of more than twelve (12) weeks will not be permitted.
Hours of work:	Minimum of forty (40) hours per week.

ABOUT THE INTERNSHIP:

ABOUT MITACS:

Mitacs is a national, not-for-profit research and training organization dedicated to advancing collaborations between industry, academia and government in Canada, and to fostering international research networks between Canadian universities and the world.

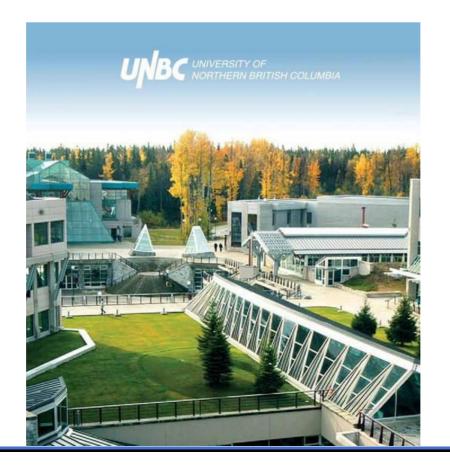
Mitacs Globalink: Offers funded research internships for top international undergraduates to study in Canada, or for Canadian students to conduct research in a Mitacs partner country.

Mitacs programs are supported jointly by provincial and federal governments and agencies, industry and universities within Canada, as well as governments and universities overseas.

ABOUT UNBC:

The University of Northern British Columbia (UNBC) is a small, research-intensive public university in British Columbia, Canada. The main campus is located in Prince George, with regional campuses farther north in Prince Rupert, Terrace, Quesnel, and Fort St. John.

UNBC is ranked by Maclean's magazine as the number one university of its size in Canada, in the Primarily Undergraduate category.[2] UNBC also finished first in the rankings in 2015 and 2016 and routinely finishes in the top three in its category. In 2007, the university obtained the trademark for "Canada's Green University".



ABOUT PROFESSOR:



Thomas Tannert joined the University of Northern British Columbia in 2016 as BC Leadership Chair in Tall Wood and Hybrid Structures Engineering. Thomas received his PhD from the University of British Columbia in Vancouver, a Master's degree in Wood Science and Technology from the University of Bio-Bio in Chile, and a Civil Engineering degree from the Bauhaus-University Weimar in Germany. Before coming to UNBC, he worked in multi-disciplinary teams in Germany, Chile, and Switzerland and was Associate Chair in Wood Building Design and Construction at UBC. Thomas is an expert in the development of design methods for timber joints and structures, is actively involved in fostering collaboration between industry and academia, and is a member on multiple international committees as well as the Canadian Standard Association technical committee CSA-O86 "Engineering design in wood".

Research Fields: Natural Resources

Areas of Expertise: Wood Engineering, Timber Joints, Hybrids Structures, Structural Analysis

Languages Spoken: English German Spanish

TRAVEL TO CANADA:

ITINERARY / ITINÉRAIRE

Date Date	Departure Départ	Arrival Arrivée	Flight Vol	Latest check-in time Fin enregistrement	Total baggage** Total bagages**	Cabin Cabine	1000	Status'
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	CDG	YVR						
	Aéroport Charles de Gaulle 2E	Vancouver Intl Airport M		ited by Air France/ é par Air France				

Total roundtrip for the internship travel is booked by Periyar maniammai institute of science and technology.

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	CDG	MAA					
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DETAILED PROJECT PLAN:



Mitacs Globalink 2022 - Research Project Plan

Last modified at Sun Feb 20 2022 20:44:10 GMT-0800 (Pacific Standard Time)

Project ID:	26148
Project Title:	Research on Self-Tapping-Wood- Screws
Professor Name:	Thomas Tannert
Intern Name:	HANUPRIYAN SELVAGANAPATHI

Project Goals:	Determine failure modes and load-carrying capacity of self-tapping screw connections
Student activities and timeline:	weeks 1-2: become familiar with topic, receive lab training and get settled in new environment weeks 3-4: prepare test program and test set-up with support of lab technicians weeks 5-8: conduct tests weeks 9-12: analyze results
Deliverables:	weeks 1-2: become familiar with topic, receive lab training and get settled in new environment weeks 3-4: prepare test program and test set-up with support of lab technicians weeks 5-8: conduct tests weeks 9-12: analyze results
Interaction:	weekly meetings with supervisor bi-weekly meetings with supervisors research team daily interactions with other team members and lab technicians
	Generated by HANUPRIYAN SELVAGANAPATHI at 2022-09-07 09:00 PT

AFTER I REACHED CANADA, MY PROFESSOR CHANGED THE PROJECT TITLE TO

"EXPERIMENTS ON NOTCHED CLT PANELS FOR SHEAR FAILURE"

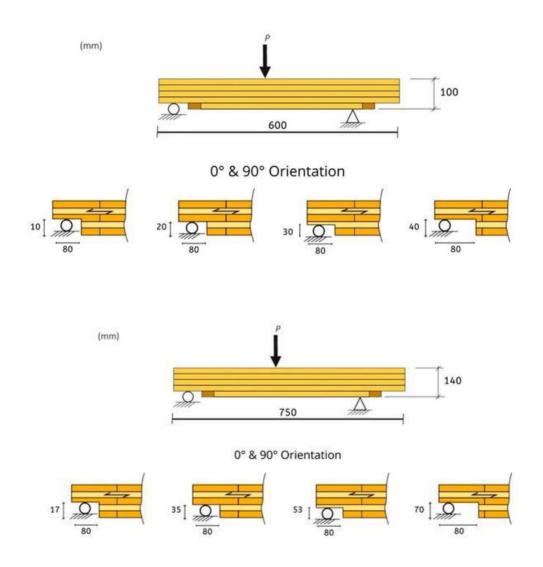
OTHER INTERN OF THE PROJECT:

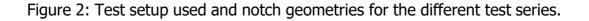
Sivanathan S Madras Institute of Technology Chennai, TN, India

EXPERIMENTS ON NOTCHED CLT PANELS FOR SHEAR FAILURE

Test Method

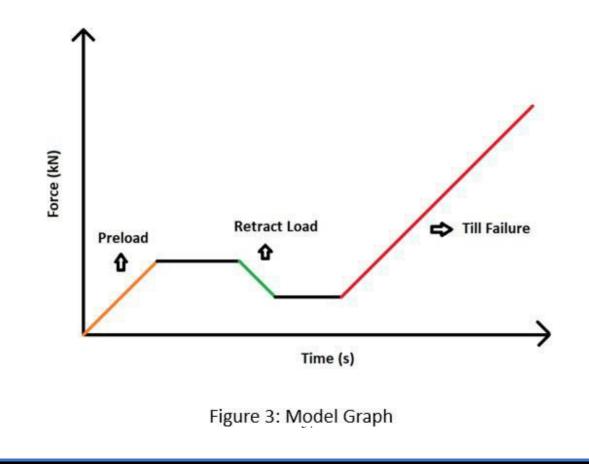
The test setup of the 3 point monotonic bending tests, the geometry of the specimens and the 2 different orientations are depicted in the figure 2. In total 8 different notch geometries were tested, 4 each for the 100mm & 140mm thick specimens in both 0° & 90° orientations(Figure 2). Testing was performed in a servo-hydraulic testing machine under displacement control.





Step 1	Preload	40% of Maximum Theoretical Load/Expected Load	
Step 2	Idle Time	20 seconds	
Step 3	Retract Load	25% of Calculated Preload	rate -> 5 mm/min
Step 4	Idle Time	20 seconds	
Step 5	Till Failure	Displacement 120mm (As it is the distance b/w base of the machine and lower end of the specimen)	

Table 1: Test Procedure



In total 174 CLT specimens without glued edge bonding, split up into 17 series with unreinforced notches and 8 series with reinforced notches were tested.

To quantify the reduction in load bearing capacity of CLT plates with notches in comparison to plates without notches, the reference tests (in total 4 series referred in Table 2&3)were carried out. All the 36 specimens of these series failed in rolling shear.

Series	Layer	No. of Tests	Mean (kN)	CoV (%)	Min/Max (kN)
N_100_00	20 x 20 x 20 x 20 x 20	12	74.42	11.57%	63.9/90.1
N_100_10	20 x 20 x 20 x 20 x 20	6	70.86	6.67%	62.8/75.9
N_100_20	20 x 20 x 20 x 20 x 20	6	44.91	10.66%	39/51.7
N_100_30	20 x 20 x 20 x 20 x 20	6	45.23	8.05%	40.8/50
N_100_40	20 x 20 x 20 x 20 x 20	6	44.12	11.14%	38.3/52.1
N_100_20_R	20 x 20 x 20 x 20 x 20	6	66.73	5.76%	61.9/71.3
N_100_40_R	20 x 20 x 20 x 20 x 20	6	63.78	4.94%	60.3/67
N_100_P_00	20 x 20 x 20 x 20 x 20	12	55.20	3.75%	39.2/58.9
N_100_P_10	20 x 20 x 20 x 20 x 20	6	46.14	6.59%	40.7/49.7
N_100_P_20	20 x 20 x 20 x 20 x 20	6	44.85	8.15%	39.7/49.6
N_100_P_30	20 x 20 x 20 x 20 x 20	6	37.42	8.01%	34.7/43
N_100_P_40	20 x 20 x 20 x 20 x 20	6	14.16	18.98%	10.7/18.4
N_100_20_PR	20 x 20 x 20 x 20 x 20	6	51.80	7.11%	46.3/57.8
N_100_40_PR	20 x 20 x 20 x 20 x 20	6	23.57	13.07%	19.5/27

Table 2: Summarised Results of 100mm Thick Specimens

Series	Layer	No. of Tests	Mean (kN)	CoV (%)	Min/Max (kN)
N_140_00	35 x 17 x 35 x 17 x 35	6	96.04	14.09%	73/107.6
N_140_17	35 x 17 x 35 x 17 x 35	6	79.09	18.80%	60.2/93.6
N_140_35	35 x 17 x 35 x 17 x 35	6	61.67	22.44%	38.1/80.8
N_140_53	35 x 17 x 35 x 17 x 35	6	39.66	11.88%	34.6/46.4
N_140_35_R	35 x 17 x 35 x 17 x 35	6	76.72	4.25%	73/81.1
N_140_53_R	35 x 17 x 35 x 17 x 35	6	79.45	5.90%	72.1/85.6
N_140_70	35 x 17 x 35 x 17 x 35	6	30.84	13.08%	26.2/36.2
N_140_35_AR	35 x 17 x 35 x 17 x 35	6	80.44	4.71%	75.3/85
N_100_00_P	35 x 17 x 35 x 17 x 35	6	33.95	10.95%	30.6/39.6
N_100_17_P	35 x 17 x 35 x 17 x 35	6	35.12	12.42%	30.3/42.5
N_100_35_P	35 x 17 x 35 x 17 x 35	6	40.48	11.39%	36.4/49.4
N_100_53_P	35 x 17 x 35 x 17 x 35	6	12.98	13.47%	11.3/15.3
N_140_53_PR	35 x 17 x 35 x 17 x 35	6	21.11	8.20%	18.3/23

Table 2: Summarised Results of 140mm Thick Specimens



Figure 4: Different types of Shear Failures in 100mm series



Figure 5: Different types of Shear Failures in 140mm series

LETTER OF APPRECIATION :



Thomas Tannert, PhD, PEng

Professor, School of Engineering BC Leadership Chair, Canada Research Chair 3333 University Way Prince George, BC, Canada, V2N 4Z9 Email: thomas.tannert@unbc.ca Tel: 1-250-960-6710

August 30, 2022

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To whom it may concern,

Re: Attendance record Mr. Hanupriyan Selvaganapathi

This is to confirm that Mr. Hanupriyan Selvaganapathi successfully completed a Mitacs Globalink Internship under my supervision at the University of Northern British Columbia, Prince George, Canada.

Details of attendant	ce are as follows:
Monday- Friday	16.05 20.05.
Monday- Friday	23.05 27.05.
Monday- Friday	30.05 03.06.
Monday- Friday	06.06 10.06.
Monday- Friday	13.06 17.06.
Monday- Friday	20.06 24.06.
Monday- Friday	27.06 31.06.
Tuesday - Friday	05.07 08.07.
Monday- Friday	11.07 15.07.
Monday- Friday	25.07 29.07.
Tuesday- Friday	02.08 05.08.

Please feel free to contact me if you need any further information.

Sincerely,

R. Taure

