

Master's Degree Certificate

Mr **Fredriksson Chaves, José Rolando**

Date of Birth **12/07/1992** Place of Birth **San José / Costa Rica**

has passed Master's degree examination at the Technical University of Applied Sciences Wildau

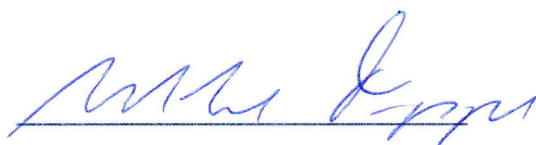
Faculty **Engineering and Natural Sciences**

Degree programme **Mechanical Engineering**

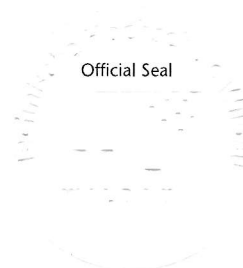
He is awarded the academic degree

Master of Engineering (M.Eng.)

Wildau, 08/29/2019



THE PRESIDENT
Prof. Dr. Tippe



This certificate is only valid in conjunction with the original certificate in German.

Master's Degree Grades

Mr **Fredriksson Chaves, José Rolando**

Date of birth **12/07/1992** Place of birth **San José / Costa Rica**

has passed the master's degree examination at the Technical University of Applied Sciences Wildau

Faculty **Engineering and Natural Sciences**

Degree programme **Mechanical Engineering**

Grades for the subjects studied in the four-semester degree were as follows:

Mathematical Methods and Optimisation	1,0	5 CP	Production Planning and Control	2,7	5 CP
Numerical Mathematics	3,0	3 CP	Production Management (Project)	1,3	7 CP
Physics	1,7	5 CP	Company Management and Finance	2,3	5 CP
Informatics for Engineering	2,7	5 CP	Controlling / Balance Sheet Analysis	2,7	5 CP
Technical Mechanics	2,7	5 CP	Business Law	1,7	3 CP
Dynamics of Machines	1,7	5 CP	Engineering Methods	1,7	2 CP
Numerical Simulation	2,0	5 CP	Compulsory Elective Modules		
Hydraulics / Pneumatics	3,7	5 CP	Digital Prototyping	1,0	5 CP
High-performance Materials and Coatings	2,0	5 CP	Regenerative Energy Technology	2,0	5 CP
Production Technologies	3,0	5 CP	Oral Master Examination		
Complex Production Systems	1,7	5 CP		1,7	6 CP

Subject of master's thesis Concentrated Solar Power: A comparison and evaluation of innovative parabolic trough collector concepts for large scale application

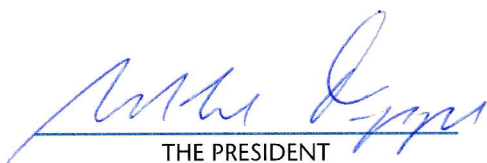
Evaluation of master's thesis 1,7 24 CP

Total credits: 120

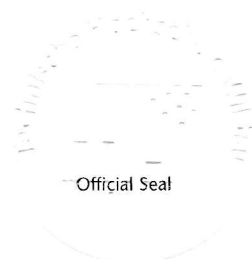

Final evaluation (average final grade)

B – very good (2,0)

Wildau, 08/29/2019



THE PRESIDENT
Prof. Dr. Tippe

CHAIR OF THE
EXAMINATIONS BOARD
Prof. Dipl.-Informatikerin Wilkes

This certificate is only valid in conjunction with the original certificate in German.

ECTS-grades: 1,0-1,5 = A - excellent, 1,6-2,0 = B - very good, 2,1-3,0 = C - good, 3,1-3,5 = D - satisfactory, 3,6-4,0 = E - sufficient, m.E. = successful
WP = Compulsory Elective Subject, CP = Credit Points

Bachelor's Degree Certificate

Mr. **Fredriksson Chaves, José Rolando**

Date of Birth **12/07/1992** Place of Birth **San Jose, Costa Rica**

has passed the bachelor's degree examination at the Technical University of Applied Sciences Wildau

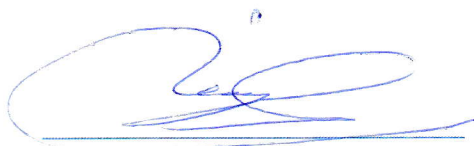
Faculty **Engineering and Natural Sciences**

Degree programme **Engineering (Mechanical Engineering)**

He is awarded the academic degree

Bachelor of Engineering (B. Eng.)

Wildau, 09/04/2015



THE PRESIDENT
Prof. Dr. Ungvári

Official Seal

Bachelor's Degree Grades

Mr. **Fredriksson Chaves, José Rolando**

Date of birth **12/07/1992** Place of birth **San Jose, Costa Rica**

has passed the bachelor's degree examination at the Technical University of Applied Sciences Wildau

Faculty **Engineering and Natural Sciences**

Degree programme **Engineering (Mechanical Engineering)**

Grades for the subjects studied in the six-semester degree were as follows:

Mathematics	2,3	10 CP	Machine Elements / Construction	2,3	10 CP
Statistics	4,0	3 CP	Product Development / CAD	1,7	5 CP
Basics of Physics	1,7	2 CP	Production Preparation	3,3	5 CP
Physics practical	2,3	2 CP	Manufacturing Measurement Technology	2,3	4 CP
Basics of Chemistry	2,0	2 CP	Tool Machines	3,0	3 CP
Informatics	2,3	8 CP	Project Management / Presentation Methods	1,7	3 CP
Statics	3,0	5 CP	Cost and Investment Accounting	1,7	4 CP
Materials Mechanics	1,7	5 CP	Business Law	2,3	2 CP
Electrical Engineering / Electronics / Drive Technology	2,7	6 CP	Compulsory Elective Modules (Construction)		
Automation Technology / Sensors	1,7	7 CP	Computer-Aided Design	1,0	5 CP
Materials	1,3	6 CP	Finite Element Method	2,0	5 CP
Thermodynamics / Heat Transfer	1,0	5 CP	High Performance Materials	2,0	5 CP
Fluid Mechanics	1,7	5 CP	Special Construction Elements	3,0	5 CP
Construction Fundamentals / CAD	1,3	7 CP	Internship		
Manufacturing Methods	2,0	9 CP	Oral Bachelor Examination		
Quality Management	2,3	5 CP		m.E.	15 CP
Dynamics	4,0	5 CP		1,0	3 CP
Materials / Processes	1,7	2 CP			

Subject of bachelor's thesis Adaptation of the massreport for the train Class 485 and development of constructive measures to compensate for the current overburden

Evaluation of bachelor's thesis 1,0 12 CP

Total credits: 180

Final evaluation (average final grade)

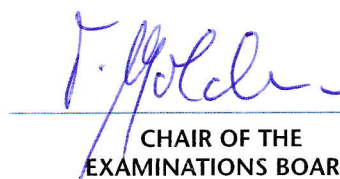
B – very good (2,0)

Wildau, 09/04/2015



THE PRESIDENT
Prof. Dr. Ungvári

Official Seal



CHAIR OF THE
EXAMINATIONS BOARD
Prof. Dr. Goldmann

This certificate is only valid in conjunction with the original certificate in German.



Erasmus+



Brandenburgische
Technische Universität
Cottbus - Senftenberg

Certificate

This is to certify that, under the **Erasmus+** Programme of the European Union/ERASMUS+ Traineeships,

Jose Fredriksson

(born on 07.12.1992),

Student of the

Technical University of Applied Sciences Wildau,

has successfully completed a European work traineeship with support of the
LEONARDO Office Brandenburg

from **15.11.2018** to **03.05.2019**

at

**German Aerospace Center
Tabernas (Almería), Spain**

Through the traineeship, the student has had the chance to gain training and work experience in a foreign country, thus acquiring new qualifications, language and intercultural competencies as well as professional skills.

The LEONARDO Office Brandenburg certifies that the traineeship met the quality standards of the **Erasmus+** Programme in accordance with its goals and intentions to enhance the mobility and competitiveness of students in the European labour market. The traineeship has been supported with a grant of the European Union.

Cottbus, 14/06/2019

Kerstin Schneider
Project Coordinator

Brandenburg University of Technology
Cottbus-Senftenberg
LEONARDO-Office Brandenburg
P.O. Box 10 13 44 • 03013 Cottbus
Germany

Stamp



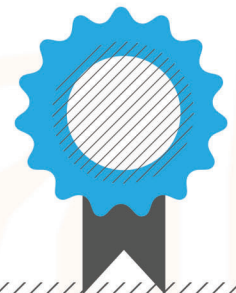
Solar Energy

Certificate of publication for the article titled:
**"A comparison and evaluation of innovative parabolic
trough collector concepts for large-scale application"**

Authored by:
M. Eng. José Fredriksson
Dpl. Ing. Martin Eickhoff, Prof. Lutz Giese, Prof. Michael Herzog

Published in:
Volume 215, Pages 266 - 310

Serial number: PR-269973-5D5CF97FAF11



CERTIFICATE OF COMPLETION

Result: Pass

Date: June 1, 2020

CONGRATULATIONS TO José Fredriksson

who has successfully completed the following:

Professional Diploma In Project Management & Leadership
Module 1, Week 4 Assignment



JAMES EGAN
CERTIFICATION OFFICER



Università degli Studi di Roma "Tor Vergata"
Dipartimento di Fisica

Università "Tor Vergata"
URM2 - DIF - Partenza
Tit./Cl.: III/12
Prot:0001806/2018
Data: ROMA 24/09/2018

Dr. phil. Angelika Schubert
Akademisches Auslandsamt /
International Office
Technische Hochschule Wildau/
University of Applied Sciences
Hochschulring 1
D-15745 Wildau

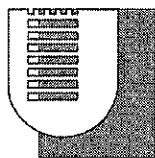
Object: Transcript of Records

Dear Partner,

Please find enclosed the Transcript of Records for your exchange student **José Fredriksson**, that stayed at our institution during the academic year 2017/18.
The student mentioned above has attended courses at the Faculty of Science in the frame of the ERASMUS+ programme.

Best Regards,

Laura Calconi
Erasmus+ Office
School of Science



FACOLTA' DI SCIENZE MM. FF. NN. - Segreteria Studenti

SI CERTIFICA CHE

FREDRIKSSON JOSE, matricola n. 0264740, nato a COSTA RICA SAN JOSE (GERMANIA) il 07/12/1992, proveniente da TECHNISCHE HOCHSCHULE WILDAU - D WILDAU01, nell'ambito del Progetto di mobilità interuniversitaria LLP/Erasmus nell'anno accademico 2017/2018 ha sostenuto i seguenti esami:

N. ESAME	VOTO	CREDITI	DATA
1 LABORATORIO DI SISTEMI ENERGETICI 6.00 CFU PER ING-INF/01	28	6,00	22/06/2018
2 GRAVITATIONAL PHYSICS 6.00 CFU PER FIS/01	26	6,00	28/06/2018
3 STAGE	27	6,00	25/07/2018
4 CELESTIAL MECHANICS 6.00 CFU PER FIS/05	26	6,00	12/09/2018

Esami riportati: 4

Tot. crediti: 24,00

Si rilascia il presente certificato in carta semplice in quanto ad uso esclusivo degli Atenei interessati.

AREA SERVIZI INFORMATIVI

Ing. Domenico Genovese

L' INCARICATO DEL RILASCIO

Patrizia Morelli

Le firme autografe sono sostituite da indicazione di stampa dei nominativi dei soggetti responsabili ai sensi del D.Lgs. 12/02/1993 n.39 art.3, comma 2.
I dati riportati nel presente certificato sono estratti dagli archivi informatizzati di questa Università ai sensi del D.Lgs. 12/02/1993 n.39 art.3, comma 1.

→ PRODUCT ASSURANCE AWARENESS TRAINING COURSE 2019

CERTIFICATE

presented to

José Fredriksson

for your participation in ESA Academy's Product Assurance Awareness Training Course 2019

ESA Academy's Training & Learning Facility, ESEC-Galaxia, Belgium
4-7 June 2019

Hugo Marée
Head of Education Office, ESA

Britta Schade
Head of the Product Assurance and Safety Department, ESA

A handwritten signature in black ink, appearing to read 'H. Marée'.A handwritten signature in black ink, appearing to read 'Britta Schade'.

Official Transcript of Records

ESA Academy Training Session:

Product Assurance Awareness Training Course 2019

Student personal data:

Complete name: **José Fredriksson**

Date of birth: **1992-12-07**

Nationality: **Germany**

Course data:

Location: **Training and Learning Facility, ESEC-Galaxia, Belgium**

Date: **4 – 7 June 2019**

Total duration: **33 h**

Lecture	Duration
Introduction and ESA Academy programme	1 h
Overall Context of Space Projects	3 h 45 m
Space Debris Mitigation Guidelines and Principles	1 h
Setting the Scene	1 h
Quality Management & Assurance	4 h
Dependability & Safety	4 h 15 m
Software Product Assurance	4 h
Materials and Processes	4 h 15 m
Electrical, Electronic and Electromechanical Components & Radiation Hardness Assurance	4 h
Product Assurance in Space Business	3 h 15 m
Visit of ESEC-Redu	1 h
Evaluation and Conclusion	1 h

Evaluation result:

Grading system:

Grade: **B**

Grade	Definition	Grade	Definition
A	Outstanding performance with only minor errors	D	Fair but with significant shortcomings
B	Above the average standard but with some errors	E	Performance meets the minimum criteria
C	Generally sound work with a number of notable errors	F	Fail – performance did not meet the minimum criteria

Transinne, 14 June 2019



Hugo Marée
Head of Education Office
European Space Agency

→ EARTH OBSERVATION SATELLITE SYSTEM DESIGN TRAINING COURSE

CERTIFICATE

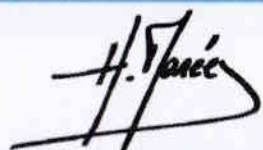
presented to

José Fredriksson

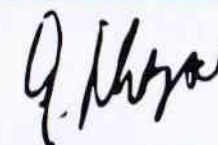
for your participation in the ESA Academy's Earth Observation Satellite System Design Training Course 2018

ESA Academy Training & Learning Centre, ESEC, Belgium
1 - 5 October 2018

Hugo Marée
Head of Education Office, ESA



Jochen Schaper
President of ARES



Official Transcript of Records

ESA Academy Training Course:

Earth Observation Satellite System Design Training Course 2018

Student personal data:

Complete name: **José Fredriksson**
 Date of birth: **1992-12-07**
 Nationality: **German**

Course data:

Location: **Training and Learning Facility, ESEC-Galaxia, Belgium**
 Date: **1 – 5 October 2018**
 Total duration: **36 h**

Lecture	Duration
Introduction, ESA and ESA Education Programme	1 h 30 m
Introduction to EO & EO Satellite Systems	2 h
From Observation Requirements to System Requirements	1 h 45 m
Orbit Selection and Launcher Alternatives Lecture and Exercise	2 h
Risk Management & Technology Development	2 h
Microwave Instrumentation Lectures and Exercise	6 h
Optical Instrumentation Lectures and Exercise	6 h
Satellite System Design & Payload Accommodation	2 h
Ground Segment & Operations Concepts	2 h
On-Ground and In-Orbit AIV - Assembly, Integration and Verification & Launch Campaign	2 h
Development of Applications based on EO Data	1 h
Group Project	6 h 15 m
Visit of ESEC including the PROBA Operations Room and Ka-Band Antenna	1 h
Conclusion	30 m

Evaluation result:

Grading system:

Grade: **A**

Grade	Definition	Grade	Definition
A	Outstanding performance with only minor errors	D	Fair but with significant shortcomings
B	Above the average standard but with some errors	E	Performance meets the minimum criteria
C	Generally sound work with a number of notable errors	F	Fail – performance did not meet the minimum criteria

Transinne, 17 October 2018



Hugo Marée
 Head of Education Office
 European Space Agency



Teilnahmebestätigung

Hiermit bestätigen wir José Fredriksson die Teilnahme an unserem konzernweiten Praktikantentag

„Train for TRAIN Day“

der am 20.03.2015 in Berlin stattgefunden hat.

José Fredriksson hat während der Veranstaltung an einem Assessment-Center-Training teilgenommen.

Wir wünschen Herrn Fredriksson für die verbleibende Zeit bei der Deutschen Bahn viel Erfolg!

Berlin, 20.03.2015


Marcus Valdiek

DB Mobility Logistics AG
Personalmarketing und Rekrutierung


Kathrin Toppel

DB Mobility Logistics AG
Personalmarketing und Rekrutierung

O Instituto de Desenvolvimento Educacional da Fundação Getúlio Vargas confere a

JOSE ROLANDO FREDRIKSSON CHAVES

O Certificado do Curso

Táticas para Negociação e Fechamento de Acordos

Nível atualização oferecido pelo Programa FGV Educação Executiva.

Data de Emissão: 10/09/2021

Carga horária: 16 horas

Código de Autenticidade: 170283608

A handwritten signature in black ink, appearing to read 'MKM'.

Mary Kimiko Guimarães Murashima

Diretora Executiva - DGA

Instituto de Desenvolvimento Educacional - IDE



QR Code de Autenticidade

CERTIFICADO DE CONCLUSÃO

Certificamos que José Fredriksson concluiu
o Curso **Hidrogênio e Transição Energética** oferecido pela
Câmara de Comércio e Indústria Brasil-Alemanha do Rio de
Janeiro realizado no ano de 2021.



Hanno Erwes
Diretor Executivo AHK Rio



Prof. Nivalde de Castro
Coordenador GESEL/UFRJ

Supported by:



on the basis of a decision
by the German Bundestag

Módulos do Curso:

Bloco 1: Transição Energética

Bloco 2: O desenvolvimento de uma economia do Hidrogênio

Bloco 3: Modelos Regulatórios e Políticas Públicas

Bloco 4: Experiência Internacional com o Hidrogênio

Bloco 5: A Economia do Hidrogênio no Brasil

Bloco 6: Um olhar para o futuro: Oportunidades, desafios e perspectivas

Carga horária: 16 horas