

DIPLOMA

ACADEMIC EDUCATION

The examination board for the bachelor's degree programme in

Creative Technology

at the Faculty **Electrical Engineering, Mathematics and Computer Science** of the University of Twente in Enschede, The Netherlands, declares that

- Julia C. Pühl -

born February 25, 1996 in Regensburg, Germany

has passed the final examination of this programme and is thus entitled to the degree

Bachelor of Science

Enschede, August 17, 2018

The Examinee

The Examination Board

A diploma supplement is issued with this diploma
NVAO accreditation: September 30, 2015

UNIVERSITY OF TWENTE.

1. INFORMATION IDENTIFYING THE HOLDER OF THE QUALIFICATION

1.1	Family name(s): Pühl
1.2	Given name(s): Julia Claudia
1.3	Date of birth (day/month/year): 25/02/1996
1.4	Student identification number or code: 1710915

2. INFORMATION IDENTIFYING THE QUALIFICATION

2.1	Name of qualification and (if applicable) title conferred: Bachelor of Science in Creative Technology
2.2	Main field(s) of study for the qualification: Creative Technology
2.3	Name and status of awarding institution: Universiteit Twente (public university, state recognized)
2.4	Name and status of institution (if different from 2.3) administrating studies:
2.5	Language(s) of instruction/examination: English



4. INFORMATION ON THE CONTENTS AND RESULTS GAINED

- 4.1 **Mode of study:**
Fulltime

4.2 **Programme requirements:**

Relevant information regarding modules and grades obtained is provided in the transcript of records (see 4.3). Programme requirements as described in the Bachelor Teaching and Examination Regulations (TER). Students who have obtained the degree have the skills and knowledge to design media and electronics inspired equally by technology and materials on the one hand, and by user benefit and user experience on the other. They have the knowledge and skills to creatively reuse existing technology in their designs, and to generate ideas for design which are both original and attractive. They have basic engineering knowledge and skills in the field of computer science and digital technology. They have the skills and knowledge to critically reflect upon their designs, and to document and defend their designs both in speech and writing. Finally they have elementary skills and knowledge regarding innovation and business plans.

4.3 Programme details: (e.g. modules or units studied), and the individual grades/marks/credits obtained:

The following list shows all the subjects completed by the student as part of the degree course. It states the subject name, number of credits and the final mark awarded to the student.

		EC	WEIGHT	MARK
COURSES FIRST YEAR				
201500227	We Create Identity	15,00		8
	Tutoring	1,00	0	V
	Interactive Video Project	3,00	25	9,0
	Essay and Showcase Portfolio	1,00	10	7,9
	Mathematics	1,00	0	V
	Programming	3,00	20	7,6
	Introduction to Computer Science	3,00	20	8,5
	Visual Communication	3,00	25	8,0
201300132	Smart Environments	15,00		8
	Project Smart Environments	3,00	0	V
	Introduction to Engineering	4,00	36	8,5
	Portfolio	1,00	0	V
	Ubiquitous Computing	4,00	36	8,4
	Sketching	3,00	28	8,5
201300189	Living and Working Tomorrow, Ideation and Explorative Design	15,00		6
	Living and Working project	5,00	30	5,8
	Designing in Context	3,00	20	6,3
	Interactive Visualization	1,00	15	8,0
	Physical Systems	3,00	20	5,9
	Math and Modeling	2,00	15	6,7
	Portfolio	1,00	0	V
201300190	Art, Impact and Technology	15,00		8
	Have Fun and Play!	5,00	40	8,4
	Human Factors	3,00	20	6,8
	Statistics	3,00	20	8,9
	Algorithms in Creative Technology	3,00	20	6,8
	Portfolio	1,00	0	V
COURSES SECOND YEAR				
201500171	Smart Technology	15,00		7
	Circuits & Electronics and Signals	4,00	27	8,3
	Sensors	3,00	21	6,5
	Intro to Telecommunication	2,00	14	7,7
	Analysis and control of systems	3,50	24	6,4
	Literature Research Project	2,00	14	7,1
	Portfolio	0,50	0	V

201600106	Intelligent Interaction Design	15,00		7
	HCI project	4,00	25	7,8
	Artificial Intelligence (theory)	2,00	15	6,3
	Programming	3,00	20	6,0
	HCI Design and Evaluation	2,50	20	9,1
	Statistical Techniques	3,00	20	7,2
	Professional development	0,50	0	V

201600233	Innovation and Entrepreneurship	15,00		8
	Thinking Strategically	3,00	20	9,4
	Acting Responsibly	4,00	25	7,0
	Innovation & Entrepreneurship Theory	3,50	20	7,3
	Innovation & Entrepreneurship Practice	4,00	35	7,0
	Professional Development	0,50	0	V

201600234	Data:From the Source to the Senses (DSS)	15,00		8
	Hybrid Worlds (project)	4,50	32	9,3
	Internet Technology	2,50	17	6,7
	Data Driven Applications	2,50	17	7,6
	Data Visualization	2,50	17	8,0
	Biosignals and Medical Electronics (ST)	2,50	17	6,9
	Professional Development	0,50	0	V

COURSES THIRD YEAR

201200226	Supplementary Topics Create 3	3,00		7
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201700333	Create Study trip Machine Learning	5,00		7
	Exam	5,00	100	7

201600364	Real World Perspective	15,00		7
	Reflection I	3,00	25	7,5
	Academic Writing	3,00	25	6,0
	Graduation Project I	4,00	0	V
	Study Trip Theme Course	5,00	50	6,6

MINOR COURSES Exchange Creative Technology

X-IN0008	Fundamentals of Databases (Technical University Munchen)	6,00		V
X-IN0012	Practical Course iOS (Technical University Munchen)	10,00		V
X-WI001059	Financial Accounting and Reporting (Technical University Munchen)	6,00		V

BACHELOR ASSIGNMENT

201600050	We Create Impact	15,00		7
	Reflection II	2,00	10	6,5
	Graduation Project II	13,00	90	7,0

Total EC: 180,00

Average grade J.C. Pühl in the programme B-CREA: 7,38 ¹

Graduation date: 17/08/2018

Total EC: 180,00

¹ Examination results are graded in accordance with the Dutch grading system (grades 1 to 10). A student's weighted average is determined by the average of the student's numerical grades, weighted in credits (ECTS).

4.4 Grading scheme and, if available, grade distribution guidance:**Dutch grading system**

The Dutch grading system, used from elementary through to university education is the 1 to 10 scale given in the following table, in which 10 is the highest grade, 6 the minimum pass, and 1 the lowest grade. However, 10 is rarely awarded.

Mark	Definition
10	Excellent
9	Very good
8	Good
7	Satisfactory
6	Sufficient
5 - 1	Fail

Special marks	Definition
C4	Compensated 4
C5	Compensated 5
NV	Absent
NVD	Not accomplished
O	Insufficient
V	Sufficient
VR	Exemption

Frequency table of passing grades

Unweighted frequency table of passing grades for all grades obtained by bachelor students in the programme over the academic years 2015 and 2016 (01-09-2015 until 31-07-2017).

Programme (Curriculum)

B-CREA

Grade	Number	Percentage
10	11	0,6%
9	108	5,5%
8	657	33,2%
7	921	46,6%
6	281	14,2%
Total number of results:	1978	100%
Average grade B-CREA	7,32	

4.5 Overall classification of the qualification (in original language):

Graduated

5. INFORMATION ON THE FUNCTION OF THE QUALIFICATION

5.1 Access to further study:

Holders of a Bachelor's degree in Creative Technology issued by the University of Twente are eligible for admission to the Master's degree course in Human Media Interaction at the University of Twente. Access to other Master's programmes is subject to the conditions stipulated by that specific programme or by the providing institution.

5.2 Professional status (if applicable):

6. ADDITIONAL INFORMATION

6.1 Additional information:

The programme was accredited by the Accreditation Organisation of The Netherlands and Flanders (NVAO: Nederlands-Vlaamse Accreditatie Organisatie) on 30 September 2015.

6.2 Further information sources:

Additional information can be obtained from the following faculty:
University of Twente
Faculty of Electrical Engineering, Mathematics and Computer Science
PO Box 217
7500 AE Enschede
The Netherlands
Tel: 053-4894602
Fax: 053-489 3114
E-mail: BFD_EWI@ewi.utwente.nl
Internet: www.utwente.nl

www.nuffic.nl

- Netherlands Organisation for International Cooperation in Higher Education (Nuffic)

www.vsnu.nl

- Association of universities in The Netherlands (VSNU)

www.minocw.nl

- Ministry of Education, Culture and Science

www.nvao.net

- Accreditation Organisation of The Netherlands and Flanders (NVAO)

www.unesco.nl

- National UNESCO Commission

7. CERTIFICATION OF THE SUPPLEMENT

7.1 **Date:**
Enschede: 17/08/2018

7.2 **Signature:**



7.3 **Capacity:**
Board of Examiners

7.4 **Official stamp or seal:**

