

# TRANSCRIPT BACHELOR

Hochschule Mannheim  
Mannheim University of Applied Sciences  
in co-operation with  
Heidelberg University

Mr Abdallah Abdul-Latif

born on  
February 18, 1998 in Heidelberg/ Germany

has successfully fulfilled all the requirement of the study programme  
Biomedical Engineering

with the grade of  
Distinction (1.2)

Thesis

Definition von HL7 FHIR Profilen aus einem generischen Datenmodell zu strukturierten  
radiologischen Befundung

Mannheim, August 24, 2021

Professor Astrid Hedtke-Becker  
President  
Mannheim University of Applied Sciences

Professor Sergij Goerd  
Dean Medical Faculty Mannheim  
University of Heidelberg



## Mr Abdallah Abdul-Latif

Has completed the following modules / courses

Course / Module	Grade	CR	Course / Module	Grade	CR
<b>Mathematics in Biomedical Engineering</b>			<b>Non Technical Subjects</b>		
Mathematics 3	1.0	6	Database Systems	1.3	5
Signals and Systems	1.0	5	Business Administration	1.0	5
Digital Signal Processing	1.3	5			
<b>Software Design and Software Architecture</b>			<b>Internship Semester and Block Courses</b>		
Software Development			Block Course 1	p	2
Methods and Tools	1.0	5	Block Course 2	p	2
Software Engineering	1.3	5	Internship	p	25
<b>Fundamentals of Electronic Engineering</b>			<b>Electives</b>		
EM Fields	1.0	5	Python-Programming	1.7	5
Analogue Electronics 1	1.0	5	Digital Image Processing and		
Sensorics 1	1.0	5	Pattern Recognition	1.7	5
<b>Digital and Embedded Systems</b>			<b>Bachelor Thesis</b>		
Digital Systems and			Bachelor Thesis Seminar	p	3
Microprocessor Technology	1.0	5	Bachelor Thesis	1.0	12
Embedded Systems	1.0	6			
<b>Operating Systems/High-Frequency Engineering</b>					
Operating Systems	1.0	5			
<b>Communication Systems</b>					
Computer Networks 2	1.3	5			
<b>Advanced Courses in Biomedical Engineering</b>					
Introduction to Clinical			Main Study		150
Medicine	2.7	4	Basic Study		61
Medical Imaging	1.3	5	<b>Total Credits awarded according to ECTS</b>		<b>211</b>
Image Guided Intervention					
and Navigation in Medicine	1.7	5			
Biomedical Electronics	1.0	5			
Neuroprosthetics	2.0	5			

Mannheim, August 24, 2021

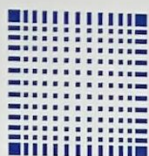
Professor Thomas Schüssler  
Vice President Academics



### Grades

1.0 – 1.5	very good
1.6 – 2.5	good
2.6 – 3.5	satisfactory
3.6 – 4.0	sufficient
p	pass





hochschule mannheim



UNIVERSITÄT  
HEIDELBERG  
ZUKUNFT  
SEIT 1386

# CERTIFICATE BACHELOR

Hochschule Mannheim  
Mannheim University of Applied Sciences  
in co-operation with  
Heidelberg University

has conferred upon  
Mr Abdallah Abdul-Latif

born on  
February 18, 1998 in Heidelberg/ Germany

the degree  
Bachelor of Science, B.Sc.

in  
Biomedical Engineering

The degree holder is entitled to use the Professional Title "Ingenieur".

Mannheim, August 24, 2021

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President  
Mannheim University of Applied Sciences

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