MARIUS PEDERSEN

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Nationality: Norwegian

EDUCATION

Ph.D. | ***Colour Imaging*** 2011
University of Oslo Oslo, Norway

- Thesis title: "Image quality metrics for the evaluation of printing workflows"
- Academic supervisor: Prof. Jon Yngve Harbeberg and Prof. Fritz Albregtsen
- Industrial supervisor: Dr. Nicolas Bonnier
- Sponsored by Océ Print Logic Technolgies, Creteil, France

Master of Technology | ***Media Technology*** 2007
Gjøvik University College Gjøvik, Norway

- Thesis: "Importance of region-of-interest on image difference metrics"
- Academic supervisor: Prof. Jon Yngve Harbeberg and Associate Prof. Peter Nussbaum

One-year programme | ***Education*** 2007
Lillehammer University College Llillehammer, Norway

Bachelor of Computer Engineering | ***Computer technology*** 2006
Gjøvik University College Gjøvik, Norway

High school 2002
Brandbu High School Brandbu, Norway

WORK EXPERIENCE

Professor of Colour Imaging Dec 2017 – today
Norwegian University of Science and Technology Gjøvik, Norway

Associate Professor Jan 2016 – Dec 2017
Norwegian University of Science and Technology Gjøvik, Norway

Associate Professor Nov 2013 – Dec 2015
Gjøvik University College Gjøvik, Norway

Researcher Nov 2011 – Nov 2013
Gjøvik University College Gjøvik, Norway

Ph.D. Student Aug 2007 – Nov 2011
Gjøvik University College Gjøvik, Norway

Customer consultant Feb 2004 – Jun 2007
Telenor Customer Service Gjøvik, Norway

Customer consultant Sep 2003 – Feb 2004
Proffice for TELENOR CUSTOMER SERVICE Gjøvik, Norway

Customer consultant Mar 2003 – Sep 2003
Nortelco Teledialog AS Gjøvik, Norway

Service employeer Apr 2002 – Jul 2003
ISS Norge Stasjonsservice Oslo, Norway

Customer consultant Jun 2001 – Apr 2002
Norges Statsbaner BA Oslo, Norway

Work Experience

Founder and board leader 2022 –today
VidiPix AS Gjøvik, Norway

Founder and owner 2021 – 2024
Nymfa DA Gjøvik, Norway

Leadership Experience

Deputy head of department campus Gjøvik ("Stedfortreder") 2022 – today
Department of Computer Science, NTNU Gjøvik, Norway

Unit leader - Colourlab 2022 – today
Department of Computer Science, NTNU Gjøvik, Norway

Deputy head campus Gjøvik 2017 – 2021
Department of Computer Science, NTNU Gjøvik, Norway

Unit leader - IDI Gjøvik 2017 – 2021
Department of Computer Science, NTNU Gjøvik, Norway

Research group leader - Colourlab 2012 – 2022
Department of Computer Science, NTNU / Gjøvik University College Gjøvik, Norway

International Experience

Three weeks visiting researcher Feb 2015
Université de Bourgogne Dijon, France

Two weeks visiting researcher May 2014
Université de Bourgogne Dijon, France

On average two weeks every two months Nov 2011 – Aug 2007
Océ Print Logic Technolgies Creteil, France

Projects, Consortia and Funding

Development of an efficient reproduction concept for spotted wolf fish 2024 – 2025
Project member

- Project coordinator: Cryogenetics AS
- Project funded by Regional Research Council Innlandet

Interpretable Machine Learning for Vision, Imaging, and Color Sciences (IMaLe-VICS) 2023 – 2025
Project member

- Project coordinator: University of Valencia, Spain
- Project funded by Generalitat Valenciana, Spain

Academic Partnership for Excellence in Color Science (APECS) 2023 – 2026
Project leader

- UTFORSK-2021 project funded by the HK-dir
- Total budget 4 827 708 NOK

ATELIER-EO: Automated machine learning framework tailored to Earth Observation 2022-2023

Project member

- Project coordinator: Cryogenetics AS
- Participated to the application, supervisor for a post doc
- Innovation project funded by the Research Council of Norway

Digital Inspection 2022 – 2025

Project member

- Project coordinator: EVICI AS
- Participated to the application, supervisor for a researcher
- Innovation project funded by the Research Council of Norway
- Total budget 3 500 000 NOK

VQ4MedicS: Video Quality Assessment and Enhancement for Pre-Hospital Medical Services 2021 – 2025

Project member

- Participated to the application and participated to the project as -co-supervisor for a Ph.D. student
- IKTPLUSS project funded by the Research Council of Norway
- Total budget 15 469 000 NOK

Quality and Content: understanding the influence of content on subjective and objective image quality assessment 2021 – 2025

Project leader

- Researcher project funded by the Research Council of Norway
- Total budget 12 710 000 NOK

CapsNetwork – International Network for Capsule Imaging in Endoscopy 2021 – 2026

Project leader

- INTPART project funded by the Research Council of Norway
- Total budget 12 500 000 NOK

Web-based solution for enhancement of wallpapers 2020 – 2021

Co-inventor

- NTNU Discovery innovation pre-project
- Total budget 200 000 NOK

Contrast sensitivity in the peripheral vision for color imaging 2020 – 2023

Project leader

- NTNU Digital Enabling Technologies
- Total budget 3 000 000 NOK

FISH-TRACKING: Analysis of fish behavior 2019 – 2020

Project member

- Pre-project funded by the Regional Research Council Innlandet
- Total budget 1 000 000 NOK

Improved Pathology Detection in Wireless Capsule Endoscopy Images through Artificial Intelligence and 3D Reconstruction (CAPSULE) 2019 – 2024

Project leader

- IKTPLUSS project funded by the Research Council of Norway
- Total budget 17 678 000 NOK

Appearance Printing - European Advanced Research School (APPEARS) 2019 – 2023
Participated to the application, supervisor for a Ph.D. student

- Innovative Training Network (ITN) - Marie Skłodowska-Curie programmet (MSCA)

Cultural Heritage Analysis for New GEnerations (CHANGE) 2019 – 2023
Participated to the application, supervisor for a Ph.D. student

- Innovative Training Network (ITN) - Marie Skłodowska-Curie programmet (MSCA)

Faglig fadderopplegg 2019
Project leader

- Project funded by the Centre for Excellent IT Education, ExcIted
- Total budget 50 000 NOK

MUVApp - Measuring and Understanding Visual Appearance 2016 – 2020
Participated to the application, supervisor for a post doctoral researcher and two Ph.D. students

- FRIPRO (Toppforsk) project funded by the Research Council of Norway
- Total budget 24 978 000 NOK

CCSF-Quality: Defining new Chromatic Contrast Sensitivity Functions for improved quality assessment and quality enhancement 2016 – 2018
Participated to the application, supervisor to the Post-doctoral researcher

- FRIPRO (FRINTATEK - mobility) project funded by the Research Council of Norway
- Total budget 3 178 000 NOK

Development of Imaging Tools for Change Detection of Cultural Heritage Objects 2016 – 2017
Project member

- Pre-project funded by the Regional Research Council Innlandet
- Total budget 1 003 150 NOK

3DSVis - Spectral and 3D Image Fusion for Enriched Visualization of Cultural Heritage Assets 2016
Project leader

- IS-DAAD project funded by the Research Council of Norway
- Total budget 60 000 NOK

IQ-MED: Image Quality enhancement in MEDical diagnosis, monitoring and treatment 2015 – 2019
Project leader

- IKTPLUSS project funded by the Research Council of Norway
- Total budget 16 160 000 NOK

Orientation selectivity in chromatic contrast sensitivity of the human visual system and its consequences on display quality 2015
Project leader

- Aurora project funded by the Research Council of Norway
- Total budget 50 000 NOK

HyperDerm - Imaging system prototype setup and evaluation 2014 – 2015
Project member

- Pre-project funded by the Regional Research Council Innlandet
- Total budget 1 000 000 NOK

Hyperspectral Imaging and Analysis of Ancient Manuscripts 2014 – 2015
Project member

- Pre-project funded by the Regional Research Council Innlandet
- Total budget 1 069 000 NOK

Colourplay: colour science research through gameplay 2013 – 2014
Project leader

- Project funded by the Regional Research Council Innlandet
- Total budget 956 000 NOK

HyPerCept: Color and Quality in Higher Dimensions 2012 – 2018
Sub-programme leader and work package leader

- Strategic University College project funded by the Research Council of Norway
- Total budget 33 665 000 NOK

Colour Printing 7.0: Next Generation Multi-Channel Printing 2012 – 2015
Participated to the application and project

- Marie Curie Initial Training Networks (ITN) CP7.0 N-290154 funded by the European Union
- Total budget 2 449 460 EUR

Master programme 3D multimedia technology 2012 – 2017
Project leader and academic coordinator

- French-Norwegian master programme together with University of Jean-Monnet, France.

Perceptual Image difference metrics - a unifying approach to image representation and reproduction 2007 – 2011
Participated to the application and project

- Strategic University College project funded by the Research Council of Norway
- Total budget 6 810 000 NOK

PRESENTATIONS

Fremtidens muligheter: kunstig intelligens og videoovervåkning Nov 2024
Invited talk. Seminar, Senja, Norway.

Kunstig intelligens og fremtidens grafiske bransje Oct 2024
Invited talk. FESPA årskonferanse, Oslo, Norway.

Farvel fastlege, jeg går heller til ChatGPT Sep 2024
Debate during Researcher's days - one of three panelists.

(Litt om) kunstig intelligens Jun 2024
Presentation for Eidssiva Bredbåd

This changes to that: combining casual and non-causal explanation to generate disease progression in capsule endoscopy Jun 2023
Invited talk.Interactive Explanations of Neural Networks and Artificial Intelligence (Int-XAI). Presented with Anuja Vats.

Computer aided diagnoses for wireless capsule endoscopy Mar 2021
Invited talk. Biomedical signals: processing and mathematical analysis. Presented with Anuja Vats.

Automatisk gjenkjenning av fisk Mar 2021
Invited talk. Fiskesymposium 2021

Impact of Color on Deep Convolutional Neural Networks Jan 2021
Invited talk. Workshop on Metrification and Optimization of Input Image Quality in Deep Networks at ICPR2021

Colour and visual computing research Jun 2019
Invited talk. Når de kreative møter teknologien, Oslo, Norway

Hvordan kan maskinlæring og kunstig intelligens bidra til å hjelpe kronikere? Mar 2019
Invited talk. Helseinn seminar, Gjøvik, Norway

Research at The Norwegian Colour and Visual Computing Laboratory. Jan 2019
CatchIDI, Trondheim, Norway

Bilder og farger: ser du det samme som jeg? Sep 2017
Invited talk. Juniorakademiet, Raufoss, Norway

Towards a perceptual image quality metric Feb 2016
Invited talk. Third International Conference on Signal Processing and Integrated Networks (SPIN), New Delhi, India

The murkiness of image quality assessment Feb 2016
Invited talk. Color Imaging XXI: Displaying, Processing, Hardcopy, and Applications, San Francisco, CA.

ColourPlay - barn og forskere leker sammen Mar 2014
Invited talk. Forum Farge 2014, Gjøvik, Norway

Presentation at PhD seminar: PhD study experiences 2012
University of Oslo, Norway

Eye-tracking demonstration 2012
Opening of Universal Design Lab at Gjøvik University College

Image quality metrics for the evaluation of printing workflows May 2012
Vitenforum at Gjøvik University College, Gjøvik, Norway

Perceived Image Quality Apr 2012
Invited talk. Vigeland Museum, Oslo, Norway

Image Quality Jun 2009
Invited talk. Seminar on Qualities and Values in Visual Media. Lillehammer, Norway

Rank order and image difference Jun 2008
Colorlab Workshop: Psychophysical experiments for image quality.

Web-based image quality evaluation experiments Jun 2008
Colorlab Workshop: Psychophysical experiments for image quality.

Gaze information and image difference metrics Apr 2008
Colorlab Workshop: Vision, Imaging and Eye Movements. Gjøvik, Norway.

Eye-tracking for color imaging research Aug 2007
Workshop at Gjøvik Color Imaging Symposium.

HONORS AND AWARDS

Outstanding Academic Fellows Programme 2019-2023 2019 – 2023
One of 20 fellows selected by NTNU

Best paper award. Caustics and translucency perception, Davit Gigilashvili, Lucas Dubouchet, Jon Yngve Hardeberg, and Marius Pedersen 2027
Material Appearance 2020

Best student paper award. Perceived Glossiness: Beyond Surface Properties. Davit Gigilashvili, Jean-Baptiste Thomas, Marius Pedersen, and Jon Yngve Hardeberg 2019
Color and Imaging Conference 2019

Runner-up Cactus award (best poster award). Comparing the Chromatic Contrast Sensitivity in Vertical and Oblique Orientations, Seyed Ali Amirshahi Marius Pedersen, Azeddine Beghdadi 2019
Color and Imaging Conference 2019

Society for Imaging Science and Technology 2019 Service Award 2019
Award for service for the Color Imaging and Conference

Best paper award "Image Quality Assessment by Comparing CNN Features between Images". Feb 2017
Image Quality and System Performance conference at Electronic Imaging 2017

Regional R&D prize Apr 2012
Awarded the regional R&D prize with the Norwegian Color and Visual Computing Laboratory

Best student paper "Image quality metrics for the evaluation of print quality" 2011
Image Quality and System Performance conference at Electronic Imaging 2011

REVIEWER AND EDITOR

Journal of Imaging Science and Technology 2014 – today
Associate editor

Colour and Visual Computing Symposium 2024 2024
Reviewer - 2 manuscripts

European Workshop on Visual Information Procesing (EUVIP) 2024
Reviewer - 3 manuscripts

London Imaging Meeting (LIM) 2024
Reviewer - 2 manuscripts

EUSIPCO 2024 2024
Reviewer - 2 manuscripts

The 12th International Conference on Signal, Image, Video and Communications (ISIVC) 2024
Reviewer - 2 manuscripts

4th International Conference on Pattern Recognition and Artificial Intelligence 2024
Reviewer - 5 manuscripts

Colour and Imaging Conference 2024
Reviewer - 3 manuscripts

IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP) 2023
Reviewer - 1 manuscript

European Workshop on Visual Information Procesing (EUVIP) 2023
Reviewer - 2 manuscripts

Colour and Imaging Conference 2022
Reviewer - 3 manuscripts

Scandinavian Conference on Image Analysis 2022
Reviewer - 2 manuscripts

3rd International Conference on Pattern Recognition and Artificial Intelligence 2022
Program committee

Frontiers in robotics and AI 2021
Guest editor - special issue "'Endoscopic Capsule Robot-based Diagnosis, Navigation and Localization" - with Dr. Hao Wang and Prof. Helder Araujo

The 9th Europeen Workshop on Visual Information Processing 2021
Reviewer - 2 manuscripts

London Imaging Meeting 2021
Reviewer - 1 manuscript

Journal of Perceptual Imaging 2020
Reviewer - 1 manuscript

SN Computer Science 2020
Reviewer - 1 manuscript

International Conference on Image and Signal Processing 2020 2020
Reviewer - 3 manuscripts

International Conference on Advanced Technologies for Signal and Image Processing (ATSIP'2020) 2020
Reviewer - 3 manuscripts

IEEE Transactions on Image Processing 2020
Reviewer - 1 manuscript

AIC 2020 2020
Reviewer - 4 abstracts

London Imaging Meeting 2020
Reviewer - 4 manuscripts

VISAPP 2020 2020
Reviewer/meta-reviewer - 2/2 manuscripts

ACM Multimedia 2019 2019
Reviewer - 6 manuscripts

Colour and Imaging Conference 2019
Reviewer - 3 manuscripts

Colour and Visual Computing Symposium 2018 2018
Reviewer - 3 manuscripts

Computational and Mathematical Methods in Medicine 2018
Reviewer - 1 manuscript

International Conference on Image Processing Theory, Tools and Applications 2017 2017
Reviewer - 2 manuscripts

International Workshop on Colour and Multispectral Imaging 2017
Reviewer - 1 manuscript

International Conference on Image and Signal Processing (ICISP) 2016
Reviewer - 3 manuscripts

International Journal of Signal and Imaging Systems Engineering 2016
Reviewer - 1 manuscript

Algorithms 2016
Reviewer - 1 manuscript

International Conference on Image Processing Theory, Tools and Applications 2016 2016
Reviewer - 2 manuscripts

Journal of Electronic Imaging 2016
Reviewer - 1 manuscript

Signal Processing: Image Communication 2015
Reviewer - 2 manuscripts

International Conference on Image Processing Theory, Tools and Applications 2015 2015
Reviewer - 4 manuscripts

IEEE Transactions on Computational Imaging 2015
Reviewer - 1 manuscript

International Conference on Image Processing 2015 2015
Reviewer - 5 manuscripts

Colour and Imaging Conference 2015 2015
Reviewer - 3 manuscripts

The Colour and Visual Computing Symposium 2015 (CVCS) 2015
Reviewer - 3 manuscripts

AIC2015/MCS2015 2015
Reviewer - 12 abstracts

19th Scandinavian Conference on Image Analysis (SCIA) 2015
Reviewer - 2 manuscripts

Journal of Imaging Science and Technology 2014
Reviewer - 1 manuscript

5th European Workshop on Visual Information Processing (EUVIP) 2014
Reviewer - 4 manuscripts

Colour and Imaging Conference 2014
Reviewer - 3 manuscripts

Journal of Electronic Imaging 2014
Reviewer - 1 manuscript

Journal of Electronic Imaging 2013
Reviewer - 1 manuscript

Colour and Imaging Conference 2013 2013
Reviewer - 2 manuscripts

IEEE Transactions on Image Processing 2013
Reviewer - 2 manuscripts

Journal of Imaging Science and Technology 2013
Reviewer - 3 manuscripts

The Colour and Visual Computing Symposium 2013 (CVCS) 2013
Reviewer - 3 manuscripts

14th international Workshop on Image and Audio Analysis for Multimedia Interactive Services (WIAMIS) 2013
Reviewer - 1 manuscript

4th European Workshop on Visual Information Processing (EUVIP) 2013
Reviewer - 4 manuscripts

Journal of Signal Image and Video Processing 2012
Reviewer - 2 manuscripts

IEEE Transactions on Image Processing 2012
Reviewer - 2 manuscripts

IEEE International Symposium on Circuits and Systems 2012
Reviewer - 1 manuscript

European Conference on Colour in Graphics, Imaging, and Vision 2011
Reviewer - 1 manuscript

EURASIP Journal on Advances in Signal Processing 2011
Reviewer - 1 manuscript

Journal of Optical Society of America A 2008/2017
Reviewer - 2 manuscripts

CONFERENCE COMMITTEES AND CONFERENCE WORK

Workshop on Challenges in Wireless Capsule Endoscopy (CWE) 2024
Organizer. Workshop at 27th International Conference on Pattern Recognition (ICPR) Kolkata, India

32nd Color and Imaging Conference 2024
JIST-first lead associate editor Montreal, Canada

Challenges in Image Quality Assessment 2023
Workshop organized with Seyed Ali Amirshahi at CIC31 Paris, France

31st Color and Imaging Conference 2023
JIST-first lead associate editor Paris, France

The 11th Europeen Workshop on Visual Information Processing 2023
Special Session Chair Gjøvik, Norway

WAI: International Workshop on Appearance and Imaging at 16th International Conference on Signal Image Technology & Internet based systems 2022
Workshop co-chair

30th Color and Imaging Conference 2022
JIST-first lead associate editor Scottsdale, USA

Colour and Visual Computing Symposium 2022 (CVCS2022) 2022
Program committee member Gjøvik, Norway

29th Color and Imaging Conference 2021
JIST-first lead associate editor Online

London Imaging Meeting 2021
Program Committee member

The 9th Europeen Workshop on Visual Information Processing 2020
Publicity chair

Colour and Visual Computing Symposium 2020 (CVCS2020) 2020
Program committee member

International Conference on Image and Signal Processing 2020 2020
Program committee

International Conference on Image Processing Theory, Tools and Applications 2020
Special session chair

Electronic Imaging 2020: Color Imaging XXV: Displaying, Processing, Hardcopy, and Applications 2020
Technical program committee member

International Conference on Advanced Technologies for Signal & Image Processing 2020
Program committee

9th International Conference on Image and Signal Processing 2019
Program committee member

Workshop "Future of image quality" at the Color and Imaging Conference 2019
Organizer

European Workshop on Visual Information Processing 2019
Session chair

Electronic Imaging 2019: Color Imaging XXIV: Displaying, Processing, Hardcopy, and Applications 2019
Technical program committee member

Special session "Perceptual visual information quality enhancement evaluation: challenges and opportunities" at the International Conference on Quality of Multimedia Experience 2019
Organizer

26th Color and Imaging Conference 2018
General chair Vancouver, Canada

Electronic Imaging 2018: Color Imaging XXIII: Displaying, Processing, Hardcopy, and Applications 2018
Technical program committee member

International Workshop on Colour and Multispectral Imaging 2017
Program committee member

25th Color and Imaging Conference 2017
Technical program chair and session chair Lillehammer, Norway

International Conference on Image and Signal Processing (ICISP) 2016
Program committee member

24th Color and Imaging Conference 2016
Technical program chair and session chair San Diego, USA

Electronic Imaging 2016: Color Imaging XXI: Displaying, Processing, Hardcopy, and Applications 2016
Technical program committee member

European Workshop on Visual Information Processing (EUVIP) 2015
Program chair

Electronic Imaging 2015: Color Imaging XX: Displaying, Processing, Hardcopy, and Applications 2015
Session chair

International Conference on Image Processing Theory, Tools and Applications 2015 (IPTA2015) 2015
Program committee member

International Workshop on Colour and Multispectral Imaging 2015
General co-chair with Jean-Baptiste Thomas (University of Burgundy). Co-located with the International Conference on Signal Image Technology & Internet based Systems

23rd Color and Imaging Conference 2015
JIST Special Section Editor

International Colour Association 2015 (AIC2015) 2015
Program committee member

International Conference on Image Processing (ICIP2015) - Special Session on Color Imaging and Applications 2015
Special session organizer

Colour and Visual Computing Symposium 2015 (CVCS2015) 2015
General co-chair Gjøvik, Norway

22nd Color and Imaging Conference 2014
JIST Special Section Editor

5th European Workshop on Visual Information Processing (EUVIP) 2014
Technical program committee member and session chair

IS&T Conference committee 2013
Committee member for designing a new IS&T color conference

21st Color and Imaging Conference 2013
Interactive paper chair and session chair

Colour and Visual Computing Symposium 2013 2013
Symposium chair Gjøvik, Norway

4th European Workshop on Visual Information Processing (EUVIP) 2013
Technical committee member

8th International IEEE Conference on Signal Image Technology and Internet Based Systems 2012
Program committee member

TEACHING - COURSES

IMT2363 - Colour Management and Image Quality 2017 – 2024
NTNU. Lecturer "IMT2363 - Colour Management and Image Quality" together with Assoc. Prof. Peter Nussbaum. Bachelor level 2 ECTS

IMT4135 - Introduction to Research on Colour and Visual Computing 2018 – 2023
NTNU. Lecturer. Master level 7.5 ECTS

IMT4461 Project Work for Exchange Master Students 2018 – today
NTNU. Course responsible. Master level 30 ECTS

IDIG4001 - Project Work for Exchange Master Students 2021 – today
NTNU. Course responsible. Master level 22.5 ECTS

IMT4895 Specialisation in Colour Imaging 2017 – today
NTNU. Lecturer. Master level 7.5 ECTS

IMT6211: Image quality 2014 – 2017
Gjøvik University College/NTNU. Course responsible. Taught five times. PhD level 5 ECTS

IMT4172: Color Image Quality and processing in an imaging workflow 2012 – 2016
Gjøvik University College/NTNU. Lecturer. Master Level 5 ECTS

TEACHING - SHORT COURSES AND GUEST LECTURES

Short course "Color Image Analysis with Deep Learning: Techniques and Best Practices" 2023
2-hours course taught with Ahmed Mohammed Kedir at CIC31 Paris, France

Short course "Fargestyring og bildekvalitet" 2023
3 day course taught with Peter Nussbaum Gjøvik, Norway

Short course "Bruk av stordata - utfordringer og muligheter" 2020
Presentation for Sparebank1 Østlandet

Short course "Bruk av big data/stordata - muligheter og utfordringer" 2020
Course run twice. 3 hours each time Gjøvik, Norway

4-day course "Image acquisition and image quality" 2018
Taught together with Assoc. Prof. Peter Nussbaum. 4-day industrial course. Gjøvik/ Oslo, Norway

Short course "Color Image Quality Assessment" 2018
Taught together with Dr. Seyed Ali Amirshahi at the 26th Color and Imaging Conferenc Vancouver, Canada

Short course "Color Image Quality Assessment" 2017
Taught together with Dr. Seyed Ali Amirshahi at the 25th Color and Imaging Conferenc Lillehammer, Norway

Short course "Color Image Quality Assessment" 2016
Taught together with Prof. Jan Allebach at the 24rd Color and Imaging Conference San, Diego

2-day course "Image acquisition and image quality" 2015
Taught together with Assoc. Prof. Peter Nussbaum. 2-day industrial course. Gjøvik, Norway

Short course "Color Image Quality Assessment" 2015
Taught together with Prof. Jan Allebach at the 23rd Color and Imaging Conference Darnstadt, Germany

Guest lectures "Contrast" and "QuickEval" 2015
Taught for master students at the University of Burgundy Dijon, France

Short course "Objective Image Quality Assessment" 2014
Taught at the 5th European Workshop on Visual Information Processing Paris, France

Short course "Color Image Quality Assessment" 2014
Taught together with Prof. Jan Allebach at the 22nd Color and Imaging Conference Boston, MA, USA

Guest lecture "Contrast" 2014
Lecture for master students at the University of Burgundy Dijon, France

Short course "Color Image Quality Assessment" 2013
Taught together with Prof. Jan Allebach at the 21th Color and Imaging Conference Albuquerque, NM, USA

Guest lecture "Improved Simulation of Image Detail Visibility Using the Non-Subsampled Contourlet Transform" 2013
Taught for "Selected topics in Color Imaging" at Gjøvik University College. Master level Gjøvik, Norway

Short course "Color Image Quality Assessment" 2012
Taught with Prof. Jan Allebach at the 20th Color and Imaging Conference Los Angeles, USA

Guest lecture: "Simulation of Image Detail Visibility using Contrast Sensitivity Functions and Wavelets" 2012
Taught for course "Advanced Course in Color Imaging" at Gjøvik University College. Master level Gjøvik, Norway

Guest lecture: "Introduction to RAW format" 2007 – 2017
Taught for course "Digital Image Reproduction and Colour Management" at Gjøvik University College/NTNU. Bachelor level Gjøvik, Norway

Guest lecture: "Image quality" 2009 – 2010
Taught for course "Advanced Course in Color Imaging" at Gjøvik University College. Master level Gjøvik, Norway

Guest lecture: "Practical information on the master thesis" 2008
Taught for course "Scientific Methodology" at Gjøvik University College. Master level Gjøvik, Norway

Guest lecture: "Introduction to halftoning" 2007
Taught for course "Advanced Course in Color Imaging" at Gjøvik University College. Master level Gjøvik, Norway

PH.D. COMMITTEE WORK

Reviewer PhD defense - Alexander Biddulph. Title: "Stereo Computer Vision on Low Powered Computing Devices" 2023
University of Newcastle , Australia

Reviewer PhD defense - Sukhendra Singh . Title: "Medical Image Classification Using High Dimensional Neurocomputing". 2023
DR. A.P.J. Abdul Kalam Technical University, India

Reviewer PhD defense - Heenabahen Maheshbhai. Title: "Night Vision Thermal Image Enhancement for Object Detection using Deep Models". 2022
Sardar Vallabhbhai National Institute of Technology Surat, India

Opponent PhD defense - Oliver Van Zwanenberg . Title: "Camera Spatial Frequency Response Derived from Pictorial Natural Scenes" 2022
University of Westminster, UK

Opponent PhD defense - Hassan Ahmed Sial. Title: ”Estimating Light Effects from a Single Image: Deep Architectures and Ground-Truth Generation” 2021
Universitat Autonoma de Barcelona, Spain

Opponent PhD defense - Toni Virtanen . Title: ”Instruments for image quality estimation” 2020
University of Helsinki, Finland

Opponent PhD defense - Mohsen Jenadelah . Title: ”Blind Image and Video Quality Assessment” 2017
University of Konstanz, Germany

Opponent PhD defense - Paula Zitinski Elias. Title: ”Improving image quality in multi-channel printing: multilevel halftoning, color separation and graininess characterization” 2017
Linkoping University, Sweden

Pre-Examiner PhD - Jenni Radun. Title: ”Better images – Understanding and Measuring Subjective Image Quality” 2016
University of Helsinki, Finland

Rapporteur PhD - Victor Medina. Title: ”Visuo-perceptual validation methods for physically-based image synthesis” 2016
MINES ParisTech, France

OTHER ACADEMIC ACTIVITIES

Reviewer of Personal Research Grant - 1 project proposal 2024
The Israel Science Foundation

Evaluator (”Klagesensor”) 2024
IDIG4321 Introduction to Color Image Processing. Master level. NTNU.

Evalator (”Tilsynssensor”) 2024
Machine Vision (AUT-2802). University of Tromsø

Examiner for COSI master thesis 2024
3 written theses. Master level. NTNU

Examiner for COSI master thesis 2023
1 written thesis. Master level. NTNU

”FRIDI - Future organization of the department of computer science” 2022 – 2024
Member of group. NTNU

Member of ”Stedlig arbeidsmiljøutvalg” - ”Arbeidsgiverrepresentant” 2023-2024
NTNU in Gjøvik

PhD supervisor seminar 2021
NTNU

External examiner - ISY9000 2019
University of South-Eastern Norway

Member of Campus Council - NTNU in Gjøvik 2017 – today
Representing Department of Computer Science

COST Action "MULTI-modal Imaging of FORElnsic SciEnce Evidence (MULTI-FORESEE) - tools for forensic science." 2017 – 2021
Member/participant

Member of organizing committee for "Forskningsdagene" 2021
NTNU in Gjøvik

Member of Working Group on "Fremtiden PhD utdanning ved IE fakultet" 2018
Faculty of Information Technology and Electrical Engineering. NTNU

IE fakultetsopplæring 2018
Faculty of Information Technology and Electrical Engineering. NTNU

Leadership traning for research leader (Lederutviklingsprogram for forskergruppeledere) 2017
NTNU

Examiner for COSI master thesis 2017
Written thesis - 1 report. NTNU

Member of faculty management committee at NTNU. 2016-2017
Faculty of Computer Science and Media Technology

Member of faculty management committee at Gjøvik University College 2015
Faculty of Computer Science and Media Technology

Examiner for IMT4882 Specialization topic 2015
Written exam - 2 reports. Gjøvik University College

Examiner for CIMET master thesis 2015
Written thesis - 1 report

CIE Division 8 technical committee 2014 – 2015
Contributed to TC8-12 Image and Video Compression Assessment

Examiner for IMT5261 Selected topics in color imaging 2013-2014
Oral exam. Gjøvik University College

Examiner for CIMET master thesis 2013
Written thesis - 1 report

Webmaster for Forum Farge website 2013 – 2018
www.forumfarge.no

Examiner for CIMET master thesis 2012
Written thesis - 2 reports. Gjøvik University College

Mentor at Idelab24 2013 2013
Gjøvik University College, Norway

CIE Division 8 reporter 2012 – 2015
R8-10 Full-Reference Image Quality Metrics: Classification and Evaluation

Webmaster for CP7.0 website 2012 – 2013
www.cp70.org

Webmaster for 3DMT website 2012 – 2017
www.master-3dmt.eu

Webmaster for Colourlab website 2008 – 2024
www.colourlab.no

Webmaster for CIMET website 2009 – 2010
www.master-erasmusmundus-color.eu

Faculty advisor for the master programme "Color in Informatics and Media Technology" 2008 – 2009
Gjøvik University College

Member of research council 2008 – 2010
Gjøvik University College

COMMISIONS OF TRUST - BOARDS

Society for Imaging Science and Technology 2023 – 2025
Executive vice president

Digital Innlandet 2022 – 2024
Board member

Society for Imaging Science and Technology 2020 – 2023
Vice president

Regional Research Fund Inland (Regionale Forskningsfond Innlandet) 2020 – 2023
Deputy board member

Forum Farge 2013 – 2018
Co-founder and secretary of

SCIENTIFIC MEMBERSHIPS

IEEE 2016 – today

Norwegian Association for Image Processing and Pattern Recognition (NOBIM) 2013 – today

Forum Farge 2013 – today

Society for Imaging Science and Technology 2007 – today

SUPERVISION - POST DOCS

Anuja Vats 2023 – 2027
Supervisor

Ahmed Mohammed Kedir 2020 – 2020
Supervisor

Vlado Kitanovski 2018 – 2019
Co-supervisor. Supervised with Jon Yngve Hardeberg

Seyed Ali Amirshahi 2016 – 2019
Supervisor

Osamu Masuda 2013 – 2015
Co-supervisor. Supervised with Jon Yngve Hardeberg

SUPERVISION - PH.D. STUDENTS

Riestiya Zain Fadillah - "Video Quality Enhancement for Pre-Hospital Medical Services" 2024 – 2027
Co-supervisor. Supervised with Dr. Seyed Ali Amirshahi and Prof. Azeddine Beghdadi

Nikola Plavac - "Influence of Imaging Pipeline Distortions on Performance of Computer Vision Task and Image Quality" 2023 – 2026
Co-supervisor. Supervised with Dr. Seyed Ali Amirshahi and Dr. Sophie Triantaphillidou

Bidossessi Emmanuel Agossou - "Deep Learning for Pathology Localization in Wireless Capsule Endoscopy" 2023 – 2026
Supervisor. Supervised with Dr.Anuja Vats and Dr. Kiran Raja

Bozhao Liu - "Combating clinical Depression using wearable sensors and Artificial Intelligence" 2022 – 2025
Co-supervisor. Supervised with Dr. Kiran Raja and Dr. Roger Hagen

Mobina Mobini - "Understanding the influence of content on objective image quality assessment" 2022 – 2025
Supervisor. Supervised with Dr. Seyed Ali Amirshahi

Shahzad Ahmad - "Rmote Intelligent Health Monitoring" 2023 – 2025
Co-supervisor. Supervised with Dr. Sukalpa Chanda and Dr.Yogesh S Rawat

Aniket Gurav 2021 – 2024
Co-supervisor. Supervised with Dr. Sukalpa Chanda and Dr.Narayanan C Krishnan

Ying Xu - "Generalizable manipulation detection in visual media" 2021 – 2024
Co-supervisor. Supervised with Dr. Kiran Raja

Ian Avery Bick - "Technoecology:Machine Learning in Bioacoustics & Ecological Art" 2021 – 2024
Co-supervisor. Supervised with Dr. Vegar Bakkestuen, Dr. Sarab Sethi, and associate Prof. Kiran Raja

Olga Cherepkova - "Personalized image quality assessment" 2021 – 2024
Co-supervisor. Supervised with associate Prof. Seyed Ali Amirshahi

Aliakbar Bozorgian - "Contrast sensitivity in the peripheral vision for color imaging" 2020 – 2024
Principal supervisor. Supervised with associate Prof. Jean-Baptiste Thomas

Guoxia Xu - "Improving Image Quality, Content, and Practicality: Knowledge-Oriented Methods for Information Enhancement" 2020 – 2023
Co-supervisor. Supervised with Associate Professor Hao Wang, Associate Professor Hu Zhu, Assistant Professor Meng Zhao

Anuja Vats - "Deep Learning for Improved Diagnosis of Pathologies in Wireless Capsule Endoscopy with Focus on Data Efficiency and Transparency" 2020 – 2023
Principal supervisor. Supervised with Dr. Ahmed Mohammed Kedir and Prof. Øistein Hovde

Dipendra Jee Mandal - "Image Quality Assessment of Hyperspectral and Conventional Imaging for Cultural Heritage Artifacts" 2019 – 2023
Principal supervisor. Supervised with Dr. Sony George and Dr. Clotilde Boust (C2RMF)

Altynay Kadyrova - "Quality Assessment of 2.5D Prints" 2019 – 2023
Principal supervisor. Supervised with Prof. Stephen Westland (University of Leeds)

Davit Gigilashvili - "On the Appearance of Translucent Objects: Perception and Assessment by Human Observers" 2017 – 2021
Co-supervisor. Supervised with Jon Yngve Hardeberg and Jean-Baptiste Thomas

Ahmed Mohammed Kedir - "Computational Techniques for Pathology Detection and Quality Enhancement with emphasis on Colonic Capsule Endoscopy " 2016 – 2019
Co-supervisor. Supervised with Sule Yildirim-Yayilgan (NTNU) and Øistein Hovde (Innlandet Hospital)

Vlado Kitanovski - "Halftone modulations for data hiding in color printed images" 2015 – 2018
Principal supervisor. Supervised with Dr. Bian Yang

David Völgyes - "Image quality in forensic CT imaging" 2015 – 2018
Principal supervisor. Supervised with Dag Waaler (HiG), Anne Catrine Trægde Martinsen (Oslo University Hospital) and Arne Stray-Pedersen (The Norwegian Institute of Public Health)

Xinwei Liu - "Multi-modality quality assessment for unconstrained biometric samples" 2015 – 2018
Supervised with Christophe Charrier (University of Caen) and Patrick Bours (Gjøvik University College)

Ferdinand Deger - "Contributions to spectral and 3D imaging technology for cultural heritage applications" 2012 – 2016
Co-supervisor. Supervised with Jon Yngve Hardeberg (HiG) and Alamin Mansouri and Yvon Voison (Université de Bourgogne)

Ping Zhao. "Camera Based Display Image Quality Assessment" 2012-2015
Co-supervisor. Supervised with Jon Yngve Hardeberg (HiG) and Jean Baptiste Thomas (University of Burgundy)

SUPERVISION - RESEARCHERS

Min-Ho Jung 2019 – 2020
Co-supervisor. Supervised with Jean-Baptiste Thomas

Olivier Rukundo 2019 – 2020
Supervisor

Kanjar De 2019 – 2020
Supervisor. ERCIM researcher.

Michael Osadebey 2018 – 2020
Supervisor. ERCIM researcher.

Olivier Rukundo 2016 – 2017
Supervisor

Mohsen Jenadeleh 2016
Supervisor. Supervised with Jon Yngve Hardeberg

SUPERVISION - MASTER THESES

Kuldeep Dileep - "Fish re-identification in the wild" 2024
Supervisor. Supervised with Dr. Mohib Ullah

Nikola Plavac - "Assessment of Deep Learning Algorithms for Automatic License Plate Recognition on Distorted Images " 2024
Co-supervisor. Supervised with Dr. Seyed Ali Amirshahi and Prof. Sophie Triantaphillidou

Lakshay Jain - "HDR-FP: A Feature-Pooled Objective Metric for High Dynamic Range Video Quality Assessment " 2023
Supervisor

Akib Jayed Islam - "Full Reference Image Quality Assessment using Siamese Neural Network" 2023
Supervisor

Tawsin Uddin Ahmed - "DSTT-MARB: Multi-scale Attention Based Spatio-Temporal Transformers for Old Film Restoration" 2022
Supervisor. Co-supervised with Kjartan Sebastian Waaseth (Nagra) and Bernt-Erik Baltzersen (Nagra)

Ehsan Ullah - "Multi-Attention SKFHDRNet For HDR Video Reconstruction " 2022
Supervisor. Co-supervised with Kjartan Sebastian Waaseth (Nagra) and Bernt-Erik Baltzersen (Nagra)

Victor Landre - "Influence of viewing history on image quality assessment" 2017
Supervisor. Co-supervised with Dag Waaler

Olga Cherepkova - "Content-based image quality assessment" 2017
Supervisor

Davit Gigilashvili - "Measuring and enhancing the quality of medical images : application to fluorescence image guided surgery using dual-axis confocal microscopy" 2017
Co-supervisor. Supervised with Jon Yngve Hardeberg

Yao Cheng - "The Comparison of ICC v2 and v4 Profile Based on Perceptual Rendering Intent" 2015
Supervisor. Supervised together with Phil Green and GuangXue Chen (South China University of Technology)

Matthieu Hog - "Improving Refocusing Algorithms For Light Field Cameras" 2015
Supervisor. Supervised together with Valter Drazic (Technicolor) and Alain Tremeau (University of Jean-Monnet)

Rameez Wajid - "Automatic Prediction of Perceptual Image Quality" 2015
Co-supervisor. Supervised together with Atif Bin Mansoor

Weiliang Wang - "Exploring Calibration and rectification process for rendering high quality light-field imaging using Lytro camera" 2014
Supervisor. Supervised together with Raghavendra Ramachandra

Daniel Suazo - "Joint Contribution of Seam Carving and Edge Blending techniques to multi-projector seamlessness" 2014
Supervisor. Supervised together with Jean-Baptiste Thomas (Université de Bourgogne)

Antonio Pelegrina - "Evaluation of Image Quality of State-of-art CT Vendors in the Norwegian Market " 2014
Supervisor. Supervised together with Dag Waaler (HiG), Anne Catrine Martinsen (Oslo University Hospital), and Wibeke Nordhøy (Oslo University Hospital)

Xinwei Liu - "CID:IQ - a New Image Quality Database" 2013
Supervisor. Supervised together with Jon Yngve Hardeberg (HiG)

Dawid Mozejko - "Image texture, Uniformity, homogenity and radiation dose properties in CT" 2013
Supervisor. Supervised together with Dag Waaler (HiG), Anne Catrine Martinsen (Oslo University Hospital), and Wibeke Nordhøy (Oslo University Hospital)

Yu Hui - "Using Chromatic Adaptation Transforms in Image Quality Metrics" 2012
Supervisor

Milena Cisarova - V"erification of proposed ISO methods to measure resolution capabilities of printing systems" 2012
Supervisor. Supervised together with Peter Nussbaum (HiG) and Frans Gaykema (Océ, the Netherlands)

Gong Mingming - "Spatial Pooling Methods For Color Image Quality Attributes Assessment" 2011
Supervisor

Timothée Royer - "Influence of Image Characteristics on Image Quality" 2010
Supervisor

Sebastien Akli Ajagamelle - "Analysis of the difference of Gaussians model in perceptual image difference metrics" 2009
Supervisor. Supervised with Gabriele Simone (HiG)

Valentina Caracciolo - "Just Noticeable Distortion evaluation in color images" 2009
Supervisor. Supervised with Gabriele Simone (HiG) and Faouzi Alaya Cheikh (HiG)

SUPERVISION - BACHELOR THESES

Joakim Aleksandersen, Sara Savanovic Djordjevic, and Hoa Ben The Nguyen - "IceMap An ice safety mapping system" 2024
Bachelor in Programming. Co-supervisor. Supervised with Pål Anders Floor.

Aliaan Azam, Sondre Espeland and Jonathan Folland - "MONK - Monitoring Data Extraction Kiosk System" 2024
Bachelor in computer engineering. Co-supervisor. Supervised with Pål Anders Floor.

Yousif Abdulrahman Almallah and Alexander Gratland - "Digital Inspection System for Municipalities based on Satellite Images" 2023
Bachelor in computer engineering. Supervisor.

Benjamin Letnes Bjerken, Lars Blütecher Holter, Daniel Hao huynh, and Lillian alice Wangerud - "Fish Detection in Underwater Video" 2023
Bachelor in Programming. Supervisor.

Erik Dale, Yeshi Jampel Pursley, Håvard Østli Fjørkenstad - "Image Content and Hand Writing Analysis of the Dead Sea Scrolls" 2022
Bachelor in Programming. Supervisor

Artūrs Umbraško, Kacper Lewandowski, Daniel Dahl - "OS Runner - Educative multiplayer rogue-like deck-building gaming experience in Cybersecurity" 2021
Bachelor in Programming. Co-supervisor. Supervised with Aland Mendoza.

Birger Johan Nordølum, Eirik Osland Lavik, Kristian André Dahl Haugen, and Tom-Ruben Traavik Kvalvaag - "Artsgjenkjenning av fisk" 2021
Bachelor in computer engineering. Supervisor

Eirik Martin Danielsen, Anders Sundstedt Langlie, Andrea Magnussen and Herman Andersen Dyrkorn - "Salamander Identification Application" 2021
Bachelor in Programming. Supervisor

Morten Tingstad Spjøtvoll, André Gyrud Gunhildberget - "Dynamic seat selector for arenas" 2020
Bachelor in Programming. Supervisor

Thomas Faack Bjørnstad and Vebjørn Sundli Alseth - "Deteksjon av fisk i video" 2020
Bachelor in engineering - computer science. Supervisor

Espen Myrum and Simen Andre Nørstebø- "Automatisk gjenkjenning av settefisk" 2019
Bachelor in engineering - computer science. Co-Supervisor

Jørgen Bakløkken, Felix Schoeler, and Hugo Nørholm - "Automated Salamander Recognition Using Deep Neural Networks and Feature Extraction " 2019
Bachelor in engineering - computer science. Co-Supervisor

Even Måren Stende, Christian Hådem and Håkon Heggholmen - "Mobil app for film reading device" 2018
Bachelor in engineering - computer science . Supervisor

Mahamud Ismail - "Sikring av Remote NDT" 2018
Bachelor in engineering - computer science. Supervisor

Jakob Michael Voigt, Lars Michael Niebuhr, Nawar Maher Behenam, and Sahand Lahafdoozian - "Python Gamut Library" 2017
Bachelor in engineering - computer science. Supervisor

SUPERVISION - OTHER PROJECTS/THESES

Pol Triquell Lombardo - "ADHD management and Color Blindness accommodation" 2024
Supervisor

Ali Mohamed Kotb Mohamed Ismail- "CNNs to measure image quality" 2023
Supervisor

Leo Watine - "Enhancement of color reproduction for Pillcam endoscopy images" 2022
Supervisor. Supervised with Pål Anders Floor

Valentine Charlet - "Creation of a 3D modular system for colon deformation" 2022
Supervisor. Supervised with Pål Anders Floor

Anna Peppenhorst Cardoso and Ana Rita Teixeira Barreto Lamelas - "Virtual Museum" 2019
Supervisor

Guillaume Assouan - "Roadcut stability analysis through real-time 3D scanning" 2018
Supervisor

Marie Bertheleme - "Image processing for polyps detection in capsule endoscopy videos" 2017
Supervisor. Supervised with Ahmed Mohammed Kedir

Clement Cavin and Benoit Barnoux - "Colourplay - extension" 2017
Supervisor

Aurore Lanoix - "Enhancement technique for Wireless Capsule Endoscopy images" 2016
Supervisor. Supervised with Ahmed Mohammed Kedir

Guilhem Zerathe and Erwan Bourrand - "Colourplay" 2015
Co-supervisor. Supervised together with Peter Nussbaum

Marine Moureaux and Bastien Bettoni - "Projecting on non-uniform surface" 2014
Co-supervisor. Supervised together with Jon Yngve Hardeberg

PUBLICATIONS

IDENTIFIERS AND STATISTICS

Google scholar - h-index: 27 - citations: 3069 - http://scholar.google.com/

ORCID - https://orcid.org/0000-0001-9797-5821

SCOPUS - h-index: 20 - citations: 1,870 - https://www.scopus.com/authid/detail.uri?authorId=23985605600

JOURNAL

Nikola Plavac, Seyed Ali Amirshahi, Marius Pedersen, and Sophie Triantaphillidou. Performance of automatic license plate recognition systems on distorted images. ***Journal of Imaging Science and Technology*****, pages 1–16, 2024** 1

Anuja Vats, David Völgyes, Martijn Vermeer, Marius Pedersen, Kiran Raja, Daniele SM Fantin, and Jacob Alexander Hay. Terrain-informed self-supervised learning: Enhancing building footprint extraction from lidar data with limited annotations. ***IEEE Transactions on Geoscience and Remote Sensing*****, 2024** 2

Ying Xu, Philipp Terhöst, Marius Pedersen, and Kiran Raja. Analyzing fairness in deepfake detection with massively annotated databases. ***IEEE Transactions on Technology and Society*****, 2024** 3

Olga Cherepkova, Seyed Ali Amirshahi, and Marius Pedersen. Individual contrast preferences in natural images. ***Journal of Imaging*****, 10(1):25, 2024** 4

Petter Sagvold, Ivar Farup, and Marius Pedersen. Spatio–temporal retinex–inspired envelopes with anisotropic diffusion. ***Journal of Imaging Science & Technology*****, 67(6), 2023** 5

Dipendra J Mandal, Marius Pedersen, Sony George, and Clotilde Boust. Comparison of pigment classification algorithms on non-flat surfaces using hyperspectral imaging. ***Journal of Imaging Science and Technology*****, 67:1–25, 2023** 6

Ehsan Ullah, Marius Pedersen, Kjartan Sebastian Waaseth, and Bernt-Erik Baltzersen. Multi-attention guided skfhdrnet for hdr video reconstruction. ***Journal of Imaging Science and Technology*****, 67:1–19, 2023** 7

Anuja Vats, Marius Pedersen, and Ahmed Mohammed. Concept-based reasoning in medical imaging. *International Journal of Computer Assisted Radiology and Surgery*, **pages 1–5, 2023** 8

Dipendra J Mandal, Marius Pedersen, Sony George, Hilda Deborah, and Clotilde Boust. An experiment-based comparative analysis of pigment classification algorithms using hyperspectral imaging. *Journal of Imaging Science and Technology*, **pages 1–18, 2023** 9

Anuja Vats, Ahmed Mohammed, and Marius Pedersen. From labels to priors in capsule endoscopy: a prior guided approach for improving generalization with few labels. *Scientific Reports*, **12(1):15708, 2022** 10

Guoxia Xu, Hao Wang, Marius Pedersen, Meng Zhao, and Hu Zhu. Ssp-net: A siamese-based structure-preserving generative adversarial network for unpaired medical image enhancement. *IEEE/ACM Transactions on Computational Biology and Bioinformatics*, **2023** 11

Michael Osadebey, Marius Pedersen, Meeta Kalra, Dag Waaler, and Nizar Bouguila. Enhancement of clustering techniques by coupling clustering tree and neural network: Application to brain tumour segmentation. *Expert Systems*, **40(3):e13176, 2023** 12

Xinwei Liu, Marius Pedersen, and Renfang Wang. Survey of natural image enhancement techniques: Classification, evaluation, challenges, and perspectives. *Digital Signal Processing*, **page 103547, 2022** 13

Altynay Kadyrova, Marius Pedersen, and Stephen Westland. Effect of elevation and surface roughness on naturalness perception of 2.5 d decor prints. *Materials*, **15(9):3372, 2022** 14

Altynay Kadyrova, Marius Pedersen, and Stephen Westland. What elevation makes 2.5 d prints perceptually natural? *Materials*, **15(10):3573, 2022** 15

Altynay Kadyrova, Marius Pedersen, and Stephen Westland. What elevation makes 2.5 d prints perceptually natural? *Materials*, **15(10):3573, 2022** 16

Guoxia Xu, Xiaoxue Deng, Xiaokang Zhou, Marius Pedersen, Lucia Cimmino, and Hao Wang. Fcfusion: Fractal componentwise modeling with group sparsity for medical image fusion. *IEEE Transactions on Industrial Informatics*, **18(12):9141–9150, 2022** 17

Anuja Vats, Kiran Raja, Marius Pedersen, and Ahmed Mohammed. Multichannel residual cues for fine-grained classification in wireless capsule endoscopy. *IEEE Access*, **10:91414–91423, 2022** 18

Guoxia Xu, Hao Wang, Meng Zhao, Marius Pedersen, and Hu Zhu. Learning the distribution-based temporal knowledge with low rank response reasoning for uav visual tracking. *IEEE Transactions on Intelligent Transportation Systems*, **2022** 19

Aliakbar Bozorgian, Marius Pedersen, and Jean-Baptiste Thomas. Modification and evaluation of the peripheral contrast sensitivity function models. *JOSA A*, **39(9):1650–1658, 2022** 20

Anuja Vats, Ahmed Mohammed, and Marius Pedersen. From labels to priors in capsule endoscopy: a prior guided approach for improving generalization with few labels. *Scientific Reports*, **12(1):15708, 2022** 21

Davit Gigilashvili, Philipp Urban, Jean baptiste Thomas, Marius Pedersen, and Jon Yngve Hardeberg. The impact of optical and geometrical thickness on perceived translucency difference. *J.Percept.Imaging.*, **pages 000501–1 – 000501–18, 2022** 22

Aladine Chetouani and Marius Pedersen. Image quality assessment without reference by combining deep learning-based features and viewing distance. *Applied Sciences*, **11(10): 4661, 2021** 23

Dipendra J Mandal, Sony George, Marius Pedersen, and Clotilde Boust. Influence of acquisition parameters on pigment classification using hyperspectral imaging. *Journal of Imaging Science & Technology*, **65(5), 2021** 24

Davit Gigilashvili, Jean-Baptiste Thomas, Marius Pedersen, and Jon Yngve Hardeberg. On the appearance of objects and materials: Qualitative analysis of experimental observations. *Journal of the International Colour Association*, **27:26–55, 2021** 25

Altynay Kadyrova, Vlado Kitanovski, and Marius Pedersen. Quality assessment of 2.5 d prints using 2d image quality metrics. *Applied Sciences*, **11(16):7470, 2021** 26

Marius Pedersen and Ahmed Mohammed. Photo identification of individual salmo trutta based on deep learning. *Applied Sciences*, **11(19):9039, 2021** 27

Davit Gigilashvili, Weiqi Shi, Zeyu Wang, Marius Pedersen, Jon Yngve Hardeberg, and Holly Rushmeier. The role of subsurface scattering in glossiness perception. *ACM Transactions on Applied Perception (TAP)*, **18(3):1–26, 2021** 28

Davit Gigilashvili, Jean-Baptiste Thomas, Jon Yngve Hardeberg, and Marius Pedersen. Translucency perception: A review. *Journal of Vision*, **21(8):4–4, 2021** 29

Michael Osadebey, Hilde K Andersen, Dag Waaler, Kristian Fossaa, Anne CT Martinsen, and Marius Pedersen. Three-stage segmentation of lung region from ct images using deep neural networks. *BMC Medical Imaging*, **21(1):1–19, 2021** 30

Meng Zhao, Hao Wang, Ying Han, Xiaokang Wang, Hong-Ning Dai, Xuguo Sun, Jin Zhang, and Marius Pedersen. Seens: Nuclei segmentation in pap smear images with selective edge enhancement. *Future Generation Computer Systems*, **114:185–194, 2021** 31

Marius. Pedersen and Olga Cherepkova. Content-based image quality assessment. *International journal of imaging and robotics*, **2020** 32

Vlado Kitanovski, Jonny Nersveen, Anton Strand, and Marius. Pedersen. Impact of printing surfaces with uv-curable inks on sound absorption. *Journal of Print and Media Technology Research*, **2020** 33

Ahmed Mohammed, Congcong Wang, Meng Zhao, Mohib Ullah, Rabia Naseem, Hao Wang, Marius Pedersen, and Faouzi Alaya Cheikh. Semi-supervised network for detection of covid-19 in chest ct scans. *IEEE Access*, **2020** 34

Azeddine Beghdadi, Muhammad Ali Qureshi, Seyed Ali Amirshahi, Aladine Chetouani, and Marius Pedersen. A critical analysis on perceptual contrast and its use in visual information analysis and processing. *IEEE Access*, **2020** 35

Ahmed Mohammed, Ivar Farup, Marius Pedersen, Sule Yildirim, and Øistein Hovde. Psdevcem: Pathology-sensitive deep learning model for video capsule endoscopy based on weakly labeled data. *Computer Vision and Image Understanding*, **201:103062, 2020** 36

Pål Anders Floor, Ivar Farup, Marius Pedersen, and Øistein Hovde. Error reduction through post processing for wireless capsule endoscope video. *EURASIP Journal on Image and Video Processing*, **2020** 37

Mohsen Jenadeleh, Marius Pedersen, and Dietmar Saupe. Blind quality assessment of iris images acquired under visible light for biometric recognition. *Sensors*, **20(5), 2020. ISSN 1424-8220. doi: 10.3390/s20051308. URL https://www.mdpi.com/1424-8220/20/5/1308** 38

Steven Le Moan and Marius Pedersen. A three-feature model to predict colour change blindness. *Vision*, **3(4):61, 2019** 39

Michael Osadebey, Marius Pedersen, Douglas Arnold, and Katrina Wendel-Mitoraj. Local indicators of spatial autocorrelation (lisa): Application to blind noise-based perceptual quality metric index for magnetic resonance images. *Journal of Imaging*, **5(1):20, 2019** 40

Michael E Osadebey, Marius Pedersen, Douglas L Arnold, Katrina E Wendel-Mitoraj, for the Alzheimer's Disease Neuroimaging Initiative, et al. Standardized quality metric system for structural brain magnetic resonance images in multi-center neuroimaging study. *BMC medical imaging*, **18(1):31, 2018** 41

Shashi Poddar, Marius Pedersen, and Vinod Karar. Color image modification with and without hue preservation. *Sensing and Imaging*, **19(1):35, 2018** 42

Michael E Osadebey, Marius Pedersen, Douglas L Arnold, and Katrina E Wendel-Mitoraj. Blind blur assessment of mri images using parallel multiscale difference of gaussian filters. *Biomedical engineering online*, **17(1):76, 2018** 43

Ahmed Mohammed, Ivar Farup, Sule Yildirim, Marius Pedersen, and Øistein Hovde. Variational approach for capsule video frame interpolation. *EURASIP Journal on Image and Video Processing*, **2018(1):30, 2018** 44

Svein Arne Jervell Hansen, Muhammad Nadeem Akram, Jon Yngve Hardeberg, and Marius Pedersen. Preferred image quality metric for shifted superimposition-based resolution-enhanced images. *Journal of Electronic Imaging*, **27(3):033017, 2018** 45

Vlado Kitanovski and Marius Pedersen. Detection of orientation-modulation embedded data in color printed natural images. *Journal of Imaging*, **4(4):56, 2018** 46

Xinwei Liu, Marius Pedersen, Christophe Charrier, and Patrick Bours. Performance evaluation of no-reference image quality metrics for face biometric images. *Journal of Electronic Imaging*, **27(2):023001, 2018** 47

David Völgyes, Marius Pedersen, Arne Stray-Pedersen, Dag Waaler, and Anne Catrine Trægde Martinsen. Applicability of a clinical cardiac ct protocol in post mortem studies. *Journal of Forensic Radiology and Imaging*, **12:25–30, 2018** 48

David Völgyes, Anne Catrine Trægde Martinsen, Arne Stray-Pedersen, Dag Waaler, and Marius Pedersen. Image de-quantization using plate bending model. *Algorithms*, **11(8), 2018** 49

David Völgyes, Anne Catrine Trægde Martinsen, Arne Stray-Pedersen, Dag Waaler, and Marius Pedersen. A weighted histogram-based tone mapping algorithm for ct images. *Algorithms*, **11(8), 2018** 50

Ahmed Mohammed, Ivar Farup, Marius Pedersen, Øistein Hovde, and Sule Yildirim Yayilgan. Stochastic capsule endoscopy image enhancement. *Journal of Imaging*, **4(6), 2018** 51

Olivier Rukundo, Marius Pedersen, and Oistein Hovde. Advanced image enhancement method for distant vessels and structures in capsule endoscopy. *Computational and Mathematical Methods in Medicine*, **2017. Accepted** 52

Marius Pedersen, Olga Cherepkova, and Ahmed Mohammed. Image quality metrics for the evaluation and optimization of capsule video endoscopy enhancement techniques. *Journal of Imaging Science and Technology*, **61(4):40402–1, 2017** 53

Vlado Kitanovski, Reiner Eschbach, Marius Pedersen, and Jon Yngve Hardeberg. Data hiding by white modulation in color direct binary search halftones. *Journal of Imaging Science and Technology*, **61(4):40403–1, 2017** 54

Michael Osadebey, Marius Pedersen, Douglas Arnold andKatrina Wendel-Mitoraj, and ADNI The Alzheimers Disease Neuroimaging Initiative. Bayesian framework inspired no-reference region-of-interest quality measure for brain mri images. *Journal of Medical Imaging*, **4:4 – 4 – 16, 2017. doi: 10.1117/1.JMI.4.2.025504. URL http://dx.doi.org/10.1117/1.JMI.4.2.025504** 55

M. E. Osadebey, Marius Pedersen, Douglas Arnold, Katrina Wendel-Mitoraj, and The Alzheimer's Disease Neuroimaging Initiative. The spatial statistics of structural magnetic resonance images: application to post-acquisition quality assessment of brain mri images. *The Imaging Science Journal*, **65(8):468–483, 2017. doi: 10.1080/13682199.2017.1369641. URL http://dx.doi.org/10.1080/13682199.2017.1369641** 56

Michael Osadebey, Marius Pedersen, Douglas Arnold, and Katrina Wendel-Mitoraj. No-reference quality measure in brain mri images using binary operations, texture and set analysis. *IET Image Processing*, **11(9):672–684, 2017** 57

David Völgyes, Marius Pedersen, Arne Stray-Pedersen, Dag Waaler, and Anne Catrine Trægde Martinsen. How different iterative and filtered back projection kernels affect computed tomography numbers and low contrast detectability. *Journal of Computer Assisted Tomography*, **41(1):75–81, 2017** 58

Reiner Eschbach and Marius Pedersen. On large local error accumulation in multilevel error diffusion. *Journal of Imaging Science and Technology*, **60(6):60403–1, 2016** 59

Seyed Ali Amirshahi, Marius Pedersen, and Stella X Yu. Image quality assessment by comparing cnn features between images. *Journal of Imaging Science and Technology*, **60(6): 60410–1, 2016** 60

Vlado Kitanovski and Marius Pedersen. Orientation modulation for data hiding in chrominance channels of direct binary search halftone prints. *Journal of Imaging Science and Technology*, **60(5):50407–1, 2016** 61

Osamu Masuda, Marius Pedersen, and Jon Yngve Hardeberg. Features contributing to the genuineness of portraits on banknotes. *Journal of Print and Media Technology Research*, **1 (5):53–59, Feb 2016. doi: 10.14622/JPMTR-1508. URL http://dx.doi.org/10.14622/JPMTR-1508** 62

Dawid Mozejko, Hilde Kjernlie Andersen, Marius Pedersen, Dag Waaler, and Anne Catrine Trægde Martinsen. Image texture and radiation dose properties in ct. *Journal of applied clinical medical physics*, **17(3):408–418, 2016** 63

Marius Pedersen, Daniel Suazo, and Jean-Baptiste Thomas. Seam-based edge blending for multi-projection systems. *International Journal of Signal Processing, Image Processing and Pattern Recognition*, **9(4):11–26, Apr 2016. doi: 10.14257/ijsip.2016.9.4.02. URL http://www.sersc.org/journals/IJSIP/vol9_no4.php. ISSN: 2005-4254 IJSIP** 64

Ferdinand Deger, Alamin Mansouri, Philippe Curdy, Marius Pedersen, Jon Y Hardeberg, and Yvon Voisin. Statistical analysis of engraving traces on a 3d digital model of prehistoric stone stelae. *Journal of Cultural Heritage*, **17:151–158, 2016** 65

A. Mansouri, F. Deger, M. Pedersen, J.Y. Hardeberg, and Y. Voisin. An adaptive spatial-spectral total variation approach for poisson noise removal in hyperspectral images. *Signal, Image and Video Processing*, **pages 1–8, 2015. ISSN 1863-1703. doi: 10.1007/s11760-015-0806-0. URL http://dx.doi.org/10.1007/s11760-015-0806-0** 66

P. Zhao, M. Pedersen, J-B. Thomas, and J. Y. Hardeberg. Measuring relative image contrast of projection displays. *Journal of Imaging Science and Technology*, **59(3):2030404, May/June 2015** 67

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