Personal information

First name/ Surname **Shida Beigpour**

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Date of birth September 15th, 1985

Research field

Computer Vision : Illuminant and Reflectance - Color Image Understanding

Current position

Associate Professor at the Faculty of Computer Science and Media Technology in Gjovik University College (Høgskolen i Gjøvik) and Researcher at the Norwegian Colour and Visual Computing Laboratory, Gjøvik, Norway

Academic background

2013 Ph.D. in Computer Vision (cum laude), Computer Vision Center (CVC), Universitat Autònoma de Barcelona, Bellaterra, Spain. [Thesis titled: "*Illumination and object reflectance modeling*", Physics-based reflectance modeling and computational color constancy for complex scenes lit by multiple illuminants.] – The title has been granted on March 19th

2009 Artificial Intelligence and Computer Vision Master of Science (in English), Universitat Autònoma de Barcelona (1st. in Spain) [1] , Bellaterra, Spain. [Projects included: Object Segmentation and Classification, Graphical Models, Bag of Words, Object Tracking and Particle Filters, 3D Reconstruction, Neural Networks, Semantic Web and Ontology, Heuristic Search, and Multi-agent Systems] (GPA of 9.25/10 - 4th out of 28 students).

2007 Software Engineering Bachelor of Science, Shahid Beheshti University (among top 10 in Iran) [2], Tehran, Iran. [Projects included: Motion Capture using Optical Flow and Shape Matching, Database System, Semantic Web Ontology, Compliers and Programming Languages, Network and Internet Engineering, Software Design] (GPA of 8.26/10 – Second best student among 80).

2003 High school Diploma of Mathematics and Physics, Tehran, Iran. (GPA of 9.17/10)

Research interests

Computer Vision Dataset acquisition and benchmarking, material characteristics and surface reflectance modeling, color-based scene understanding, illumination estimation and color constancy, computational photography, color in human vision, vision for graphics, object recognition and segmentation, vision-based motion capture.

Computer Graphics Reflectance and lighting, Realistic Automatic Photo-editing, Color Theory.

Languages

	Understanding				Speaking				Writing	
European level (*)	Listening		Reading		Spoken interaction		Spoken production			
Persian (Farsi)	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user
English	C2	Proficient user	C2	Proficient user	C2	Proficient user	C2	Proficient user	C1	Proficient user
Spanish (Castellano)	C1	Proficient user	C1	Proficient user	C1	Proficient user	C1	Independent user	B2	Independent user
German (Deutsch)	A2	Basic user	B1	Independent user	A2	Basic user	A2	Basic user	A2	Basic user

(*) Common European Framework of Reference for Languages

1- Ranking by the 2012 QS World University Rankings : http://www.topuniversities.com/institution/universitat-autonoma-de-barcelona

2- According to the iranian Ministry of Science, Research and Technology .

Scientific Publications

2014 Sh. Beigpour and C. Riess and J. van de Weijer, and E. Angelopoulou, **Multi-illuminant estimation using Conditional Random Field**, *IEEE Transactions on Image Processing (TIP)*, vol.23, no.1, pp.83,96, January 2014.

2013 Sh. Beigpour, M. Serra, J. van de Weijer, R. Benavente, M. Vanrell, O. Penacchio, and D. Samaras, **Intrinsic Image Evaluation On Synthetic Complex Scenes**, *Proceedings of IEEE International Conference on Image Processing (ICIP)*, September 2013.

2013 Sh. Beigpour, **Illumination and object reflectance modeling**, *Ph.D dissertation from Computer Vision Center / Technical School of Engineering,* Universidad Autonoma de Barcelona, [Under the supervision of J. van de Weijer], March 19th 2013.

2011 Sh. Beigpour and J. van de Weijer, **Object Recoloring based on Intrinsic Image Estimation**, *Proceedings of IEEE International Conference on Computer Vision (ICCV)*, November 2011.

2011 J. van de Weijer and Sh. Beigpour, **The Dichromatic Reflection Model: Future Research Directions and Applications**, *invited paper at Int. Conf. on Computer Vision, Imaging and Computer Graphics Theory and Applications (VISIGRAPP)*, Portugal, 2011.

2011 M. Bleier, C. Riess, Sh. Beigpour, E. Eibenberger, E. Angelopoulou, T. Troeger, and A. Kaup. **"Color Constancy and Non-Uniform Illumination: Can Existing Algorithms Work?" ,** *ICCV Workshop on Color and Photometry in Computer Vision (ICCV Workshop)*, November 2011.

2010 Sh. Beigpour and J. van de Weijer, **Photo-Realistic Color Alteration For Architecture And Design**, *Proceedings of Colour Research for European Advanced Technology Employment (CREATE) Conference*, Jun 2010, (Chosen for oral presentation).

2009 Sh. Beigpour and J. van de Weijer, **Object Color Alteration**, *4th CVC workshop on the progress of research and development (CVCR&D)*, October 2009.

2009 Sh. Beigpour**, Physics-based Reflectance Estimation Applied To Recoloring**, *Master thesis from Computer Vision Center / Technical School of Engineering*, Universidad Autonoma de Barcelona, [Under the supervision of J. van de Weijer], July 2009.

Research experience

2013-Present Associated Researcher at the Norwegian Colour and Visual Computing Laboratory, Gjovik University College (Høgskolen i Gjøvik), Norway.

2008-2013 Color Vision, Computer Vision Center (CVC), Universitat Autònoma de Barcelona, Bellaterra, Spain. [Subjects: Eye-tracking, Multi-colored illuminant detection and correction using Object Reflectance and Graphical Models, Color Constancy, Object Recoloring for automatic photo editing, and acquisition of a Multi-illuminant image dataset]

2011 Research stay (April-July), Pattern Recognition Lab of the Friedrich-Alexander University Erlangen-Nuremberg, under the supervision of Elli Angelopoulou Ph.D. [Subjects: Non-uniform Illumination and Color Constancy methods, Automatic White Balance, and Graphical Models.]

2008-2009 Computer Vision and Artificial intelligence, Technical School of Engineering (ETSE), Universitat Autònoma de Barcelona, Bellaterra, Spain. [Subjects included: Segmentation, Classification, Learning and SVN, Bag of Words, Object tracking and particle filters, 3D reconstruction, Neural Networks, Graphical Models, PASCAL challenge, Heuristic Search, and Fuzzy Logic]

2006-2007 Vision-based Motion Capture Systems, Vision Lab, School of Mathematics, Institute for Studies in Theoretical Physics and Mathematics (IPM), Tehran, Iran. [Subject: Motion transfer using Shape Matching and Optical flow.]

2006 RoboCup, Urban Search and Rescue Simulation (USARSim), SBCe_Saviour team, Electrical and Computer Engineering Department, Shahid Beheshti University, Tehran, Iran. [Subjects: Image Processing; Human detection using infra-red camera.]

2005 RoboCup, Rescue Simulation, SBCe_Saviour team, Electrical and Computer Engineering Department, Shahid Beheshti University, Tehran, Iran.

Grants

2012-2013 Research grant (October 2012 – March 2013), Computer Vision Center (CVC), Universitat Autònoma de Barcelona, Bellaterra, Spain.

2008-2012 Training Research Staff (PIF- Personal de Investigación en Formación), Technical School of Engineering (ETSE), Universitat Autònoma de Barcelona, Bellaterra, Spain.

2011 Short length stay outside Catalunya for PIF grant holders, Subject of the grant: 3 month (April to July) stay at the Pattern Recognition Lab of the Friedrich-Alexander University Erlangen-Nuremberg, Germany.

Awards

2007 Second best student (among 80) of the Electrical and Computer Engineering Department, Shahid Beheshti University, Tehran, Iran.

Teaching experience

2013 Web design (HTML5 and CSS3), at the Faculty of Computer Science and Media Technology in Gjovik University College (Høgskolen i Gjøvik), Gjovik, Norway.

2009-2012 Artificial Intelligence, at the Technical School of Engineering (ETSE), Universitat Autònoma de Barcelona, Bellaterra, Spain. [Subjects: Color Naming; Heuristic Search.]

2008-2009 Artificial Intelligence II (Advanced), at the Technical School of Engineering (ETSE), Universitat Autònoma de Barcelona, Bellaterra, Spain. [Subjects: Bayesian network; Classification and SVN.]

2003-2007 Computer programming in Tehran, Iran. [Subjects: Algorithms, Pascal, and C++]

2003-2007 Multimedia design in Tehran, Iran. [Subjects: Adobe Flash, Photoshop, and Illustrator]

Highlighted Talks

2013 Illumination and object reflectance modeling, NICTA, Canberra Research Laboratory, Australia
2012 Object Recoloring based on Intrinsic Image Estimation, 7th CVC workshop on the progress of research and development (CVCR&D), October 2012.
2010 Photo-Realistic Color Alteration For Architecture And Design, Colour Research For European Advanced Technology Employment (CREATE) Conference - June 2010, Gjøvik, Norway.
2007 Vision Based Approaches for Motion Capture, Institute for Studies in Theoretical Physics and Mathematics (IPM) – July 2007, Tehran, Iran.
2006 Motion Capture Systems, Institute for Studies in Theoretical Physics and Mathematics (IPM), Tehran, Iran.
2006 Languages and Tools for Web Ontology Construction, Shahid Beheshti University, Tehran, Iran.
2006 Face Detection, Institute for Studies in Theoretical Physics and Mathematics (IPM), Tehran, Iran.

Computer skills

Operating systems	Mac OS X, Windows, and Linux
Programming	Matlab, C#, C/C++, Pascal/Delphi, SQL, Javascript, HTML5, CSS3, Python, and XML
Graphics and Multimedia Design	Adobe Flash (Action Script 2.0), Adobe Photoshop, Adobe Illustrator, 3DsMax, Blender, and Adobe After Effects.
Others	Latex and Microsoft Office (PowerPoint, Word, and Excel), Protégé.

Personal Interests and Hobbies

Photography, Architecture, Animation, Graphics, Languages and Literature, Hiking, Music, Traveling, and Painting.