



Copyright © 2018 by Academic Publishing  
House Researcher s.r.o.  
All rights reserved.  
Published in the Slovak Republic  
European Journal of Contemporary Education  
E-ISSN 2305-6746  
2018, 7(1): 4-6  
DOI: 10.13187/ejced.2018.1.4  
[www.ejournal1.com](http://www.ejournal1.com)

**WARNING!** Article copyright. Copying, reproduction, distribution, republication (in whole or in part), or otherwise commercial use of the violation of the author(s) rights will be pursued on the basis of international legislation. Using the hyperlinks to the article is not considered a violation of copyright.



## Visualization in Basic Science and Engineering Education: Call for Manuscripts for a Special Issue

Rushan Ziatdinov <sup>a,\*</sup>

<sup>a</sup>Department of Industrial Engineering, Keimyung University, Daegu, Republic of Korea

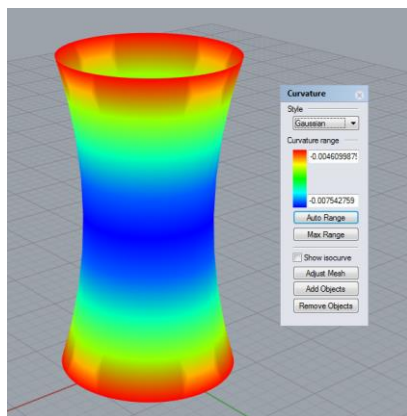
Dear Colleagues,

It is well known that **the main aim of visualization is to make invisible things visible**. Visualization through visual imagery has been an effective way to communicate both abstract and concrete ideas since the dawn of mankind. Historical examples of this concept include cave paintings, Egyptian hieroglyphs, Greek geometry, antique mosaics and Leonardo da Vinci's revolutionary approaches to technical drawing, for engineering and scientific purposes.

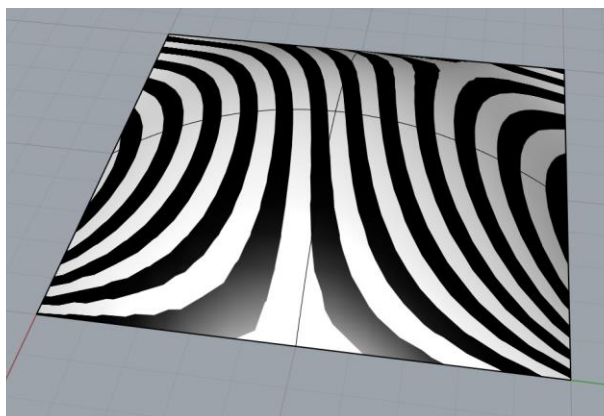
The invention of computer graphics played the most important role in the development of scientific visualization and, as a result, influenced all levels of modern education. Educational visualization entails using a simulation, in order to create an image of a model or a process, so that it can be easily taught and explained. This is very useful when teaching a topic that is difficult to provide visual reference to, such as atomic structure, distribution or variation of temperatures in the human body, Gaussian curvature of a surface (Fig. 1), zebra stripes on a composite surface (Fig. 2) and many other scientific and engineering-related problems. Educational visualization rapidly enriches the field of educational technology, which consists of both theory and ethical practice in the educational process, across different sectors.

---

\* Address for correspondence: Department of Industrial Engineering (Office 4308), College of Engineering, Keimyung University, 1000 Shindang-dong, Dalseo-Gu, 704-701 Daegu, Republic of Korea.  
E-mail: [ziatdinov.rushan@gmail.com](mailto:ziatdinov.rushan@gmail.com), [ziatdinov@kmu.ac.kr](mailto:ziatdinov@kmu.ac.kr)  
URL: <http://www.ziatdinov-lab.com/>



**Fig. 1.** Gaussian curvature of a surface created by a revolving NURBS curve.



**Fig. 2.** Zebra stripes are used for checking the quality of a composite polynomial surface.

Considering the importance of the aforementioned statements in contemporary education and, as the editor of the **European Journal of Contemporary Education** (e-ISSN 2305-6746, website: <http://ejournal1.com/en/index.html>), I would like to invite you to submit your manuscripts for the special issue, entitled “**Visualization in Basic Science and Engineering Education**”. The special issue will cover the topics related to educational visualization and its applications in basic science and engineering education. Special focus will be placed on the works in which educational visualizations were developed by modern programming languages and computer algebra systems.

Author(s) who are interested in the aforementioned topics are requested to consider the following important guidelines:

- Individual papers should not be less than 5000 words and should not exceed 10 000 words, should be approximately 25–35 double-spaced, typewritten pages, including abstract, tables, figures, endnotes and excluding references.

- The author’s/authors’ full name[s]/affiliation[s] with a full postal address including a postcode, should be enclosed.

- The abstract of 200-250 words should consider the purpose of the paper, method, literature, and expected specific and unique contributions for university professors, teachers, young educators and students, as well as the field of education in general.

- Author(s) should propose at least three peer reviewers and their names, affiliations and contacts.

- The manuscript should be carefully copy-edited by a native speaker who is a professional in the field of science or engineering education. The proof thereof, or the copy-editing certificate, should be submitted at the final stage after the required revisions have been made.

- **All accepted manuscripts will be published without any charges.**

- All manuscripts will be scheduled and the timeline will be as given below:

- full-length manuscripts should be submitted only within the period from **October 1, 2018 to October 7, 2018**. Please use both [ziatdinov.rushan@gmail.com](mailto:ziatdinov.rushan@gmail.com) and [ziatdinov@kmu.ac.kr](mailto:ziatdinov@kmu.ac.kr) for manuscript submission.

- deadline for sending papers to peer-reviewers or rejecting a manuscript is **November 1, 2018**.

- deadline for receiving reviewers’ comments is **December 15, 2018**.

- Guest Editor’s decisions will be sent to the authors before **January 1, 2019**.

- deadline for receiving revised versions is **February 10, 2019**.

- the publication of the special issue will occur on **March 31, 2019**.

All submitted manuscripts must be original, not under consideration elsewhere, and not previously published.

The Guest Editor reserves the right to refer any single paper for alternative or additional peer assessment, and to refuse any papers that are not recommended for publication by alternate reviewer(s).

The Guest Editor is responsible for overseeing the double blind review and revision process. This includes selecting and contacting independent peer reviewers (at least two 'blind' reviews per paper), assessing reviewers' comments, forwarding comments to the authors and requesting they revise their paper (taking into consideration the comments), and reviewing the revised papers and the author's responses to how the review comments were addressed.

The EJCE provides equal opportunities for academics, researchers and scholars who work in different countries. The EJCE has been included in the Web of Science Core Collection (ESCI) since December 2015, in Scopus since March 2016 and listed in many other indices and databases, such as ERIC, EBSCO, etc.

#### **Short biography of the Guest Editor**

**Rushan Ziatdinov** is a native Tatar from Russia, and is a faculty member at the Department of Industrial Engineering at Keimyung University, Daegu, Republic of Korea. He obtained his MS degree in the area of mathematical methods in economics from the Kama State Institute of Polytechnics (currently the part of Kazan Federal University) in Russia, and has a PhD degree in mathematical modelling from Ulyanovsk State University in Russia. In the beginning of his scientific career, he held the positions of Assistant Professor in the Department of Geometry and Mathematical Modelling at Tatar State University of Humanities and Education, and also in the Department of Special Mathematics at Tupolev Kazan National Research Technical University (Kazan University of Aviation), Kazan, Russia. He then moved to Seoul National University in the Republic of Korea, where he was a postdoctoral researcher in the Computer-Aided Design and Information Technology Lab of the Department of Naval Architecture and Ocean Engineering. From 2011–2015 he was a faculty member in Istanbul, Turkey. His research interests are broad and include computer-aided geometric design, CAD/CAM, aesthetic shape modelling, the use of computer models in science and engineering, instructional technologies and mathematical modelling. Professor Ziatdinov is an editor of several engineering and educational journals, as well as the author of a series of manuscripts published in top journals.