



Photo: Mahdi Shamohammadi

*The Iranian National Observatory*

# IUT International E-Newsletter

A Window to International Activities of IUT

Volume 3, Issue No. 7

July & August 2022



## What we read in this issue:

- IUT International News
- IUT News on Industry & Technology
- IUT Awards and Honors
- IUT Upcoming Events & International Opportunities



## A New Director is Appointed for IUT International Scientific Cooperation Center



IUT President appointed **Prof. Peiman Mosaddegh** as the Director of the International Scientific Cooperation Center in Isfahan University of Technology (IUT).

IUT President, **Prof. Meibodi**, announced this appointment of two-year duration based on the excellent records and experiences that Prof. Mosaddegh has had during his academic career, and wished him receiving the grace of God and benefiting from experiences, facilities and capacities in developing and enhancing the purposes of this center.

Prof. Mosaddegh is a PhD graduate of Mechanical Engineering from Clemson University, USA, and currently a faculty member and associate professor of the Mechanical Engineering Department in IUT. He has written books both in Persian and English languages, has several patents, and published remarkable papers in both national and international journals.

## paying tribute to the former director and announcing the new director of IUT International



A meeting was organized to pay tribute to the former director and announce the new director of the International Scientific Cooperation Center of IUT. In this meeting, **Prof. Mohammad Javad Omid**, the former director of International Scientific Cooperation Center was honored and **Prof. Peiman Mosaddegh**, was announced as the new director.

This event was arranged on July 25, 2022, and in the presence of IUT President and the administrative staff of the IUT International Center. In this meeting, which was held following the acceptance of Prof. Omid's resignation from this position, the IUT President appreciated and thanked Prof. Omid for his valuable efforts in improving this center during his administration and wished Prof. Mosaddegh success for directing this center. He also asserted that Prof. Mosaddegh's abilities and experiences will be definitely effective in achieving the university's internationalization goals. According to the decision of the university president, Prof. Omid is retained as the Acting President for the Development of Technological Infrastructures.



## IUT in Shanghai Ranking System for 2022



This ranking is carried out in 54 disciplines and 5 general fields including: engineering (22 majors), natural sciences (8 majors), biological sciences (4 majors), medical sciences (6 majors), and social sciences (14 majors). More than 1,800 universities out of 5,000 were surveyed from 96 countries. 34 universities were from Iran.

Isfahan University of Technology (IUT) is also included in SR (Global Ranking of Academic Subjects) for 2022. Accordingly, IUT is ranked (401-500) in the field of **physics** that achieved the **1<sup>st</sup>** ranking in Iran and is among the top universities in the world. Also, in the subject ranking of Shanghai, there are 22 engineering fields. 16 Iranian universities are rated in this ranking in the field of mechanical engineering, and IUT (301-400) is among the top universities in this field.

IUT has been among the top universities of the world in various fields including: engineering science and instrument technology (76-100), chemical engineering (301-400), energy, food sciences and technology (201-300), biotechnology (401-500), mining engineering (51-75), metallurgical engineering (151-200), and agricultural sciences (401-500).

As for this top worldwide ranking, Harvard University is ranked first in 16 scientific fields, and Massachusetts Institute of Technology (MIT) is ranked first in five scientific fields. In general, the names of some Chinese universities appear among the best ones in the engineering group, while in the medical group, the names of some American universities are more frequent. In the field of natural sciences, French universities have performed impressively.

## Winners of the Swiss Excellence Scholarship met the Switzerland's Scientific Advisor in Iran

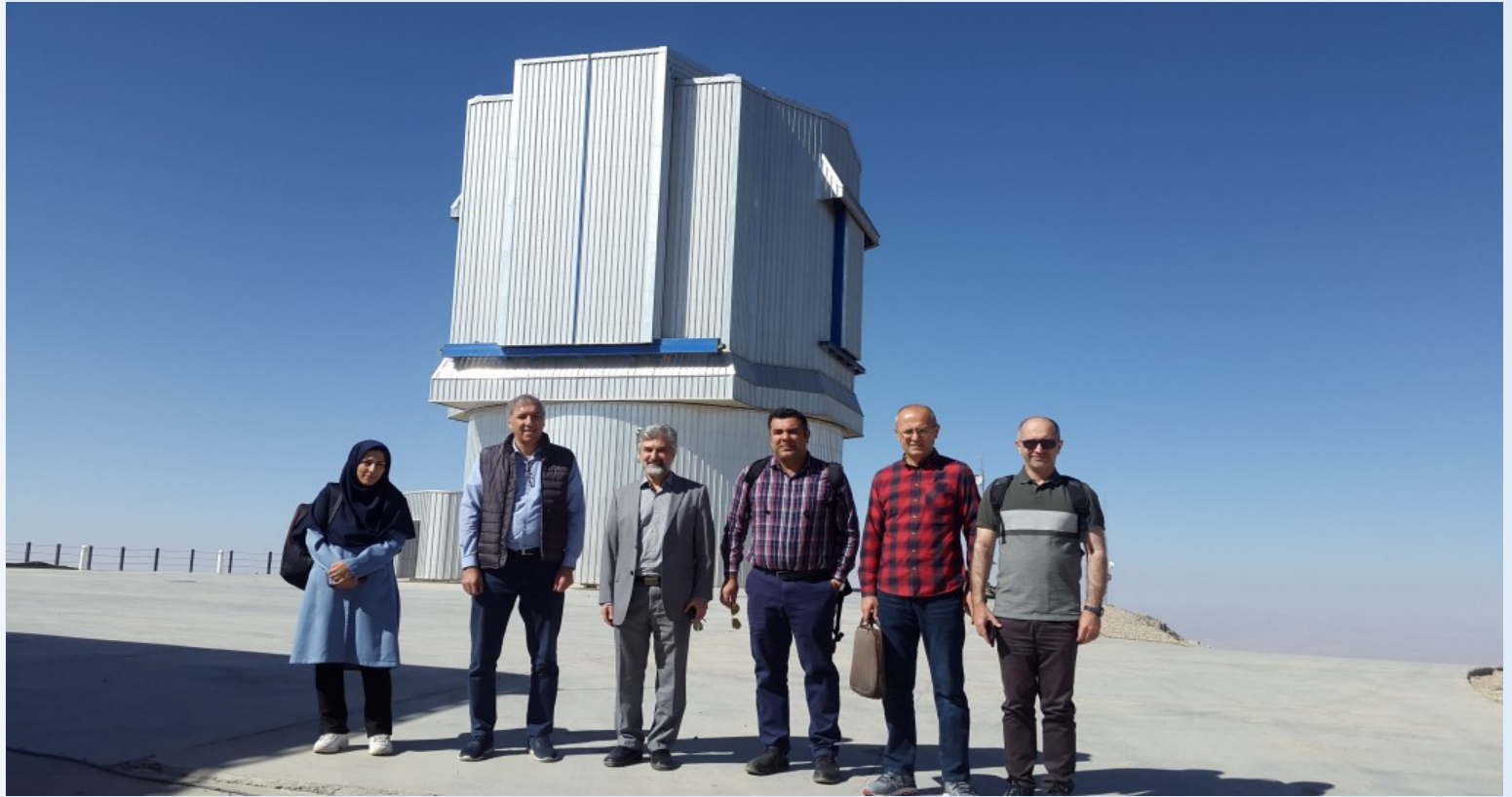
Following the announcement of the results of the Swiss Excellence Scholarship for 2022-2023, the winners of this scholarship were invited to meet the scientific advisor of Switzerland, **Mrs. Chantal Delli**, in Tehran.

This meeting was held on July 4, 2022, in the garden of the Swiss Embassy in Tehran.

17 new scholars from Iran in 2022 as well as 6 academics who were able to prolong their scholarship for another year are the winners. Out of 17 Iranian scholars, 4 new winners are from IUT.



## A Visit Paid to the Iranian National Observatory by some Administrators and Faculty Members of the IUT Physics Department



A group of administrators and faculty members of the Department of Physics visited the National Observatory of Iran on June 16, 2022. In this visit, which was carried out at the invitation of **Prof. Habib Khosroshahi**, the director of the Iranian National Observatory (INO), **Prof. Seyed Zafarollah Kalantari**, the head of the Department of Physics, **Prof. Parviz Kameli**, deputy for the research of the Department, **Prof. Soroush Shakeri**, coordinator for international affairs of the Department, **Prof. Keivan Aghababaei Samani** and **Prof. Sedigheh. Sajadian**, faculty members of the Department, were the members of the IUT visiting team. During this visit, the joint cooperation fields have been reviewed and evaluated between the INO as one of the country's scientific macro projects and Isfahan University of Technology as one of the top Iranian universities with high subject rankings in physics and astrophysics. With only 137 km distance away from the INO site, IUT enjoys many geographical, scientific, and technological privileges to make fruitful collaborations with INO.

During this visit, the IUT teams talked about the possibility of Isfahan University of Technology hosting prominent Iranian and foreign astronomers at the university campus for having scientific cooperation. Also, both sides talked about initiating joint scientific projects with the participation of the INO in defining joint proposals and programs for postdoctoral researchers in IUT. There were also some discussions about organizing joint activities such as the first IUT-INO workshop on "Transient events and multi-messenger astrophysics" which was planned to be held on 28-29 July 2022. The visit continued by observing different parts of the observatory and the mechanical and control equipment of the telescope. Meanwhile, the details of a mutual agreement between IUT and INO was discussed either.



## IUT-INO Workshop on Transient Events and Multi Messenger Astrophysics

A virtual international workshop about "Transient events and multi messenger astrophysics" was held on 28-29 July 2022 (6-7 Mordad 1401).

This event was organized by IUT Department of Physics, the Iranian National Observatory (INO), and School of Astronomy (SoA) of the Institute for Research in Fundamental Sciences (IPM).

This workshop aimed at having optimal use of the 3.4-meter telescope of the INO, and other available and future observation equipment by researchers and students, and also increasing the capacity and development of the specialized manpower.

There were more than 290 registered participants including Postdocs, PhD, and MSc students with an average number of 100-140 attendees in each online presentation which attracted so much interests among

astrophysics community of Iran. This rich program of the workshop was articulated in 16 lectures given by prominent speakers invited mainly from the most well-known universities of **USA, UK, Italy, China, Armenia, and Iran**. The workshop was started by an opening talk given by **Prof. Habib Khosroshahi**, the director of INO, about the current status of INO and 3.4-meter telescope. Afterwards, **Prof. Hamidreza Safavi**, the vice-president for research of IUT, talked about the scientific and technological potentials of IUT in different aspects and future perspectives of IUT-INO collaborations.

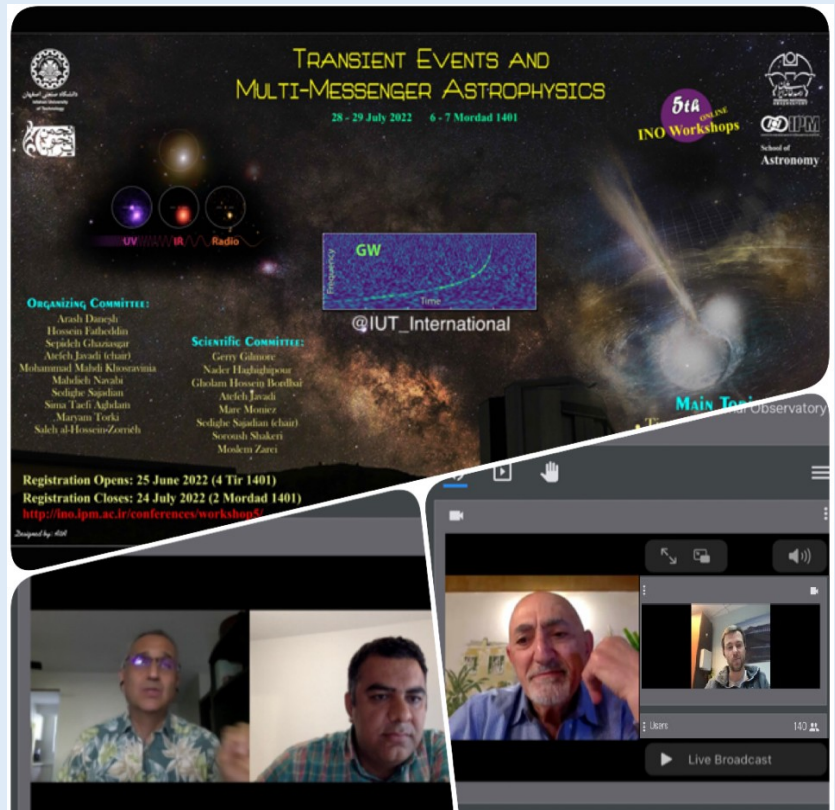
During two days of the workshop, the most recent and upcoming discoveries in the time-domain astronomy have been discussed extensively and large astronomical surveys and observational approaches as well as messengers have been introduced for the young generation of the Iranian astrophysicists.

More information about the meeting and talks are available on:

<http://ino.ipm.ac.ir/conferences/workshop5/>

And records of the online presentations can be seen on:

[https://www.aparat.com/INO\\_Events](https://www.aparat.com/INO_Events)



A webinar on "**Artificial Intelligence and Remote Sensing for Condition Assessment of Civil Infrastructure**" was held by the Department of Civil Engineering of IUT on June 21, 2022.

**Prof. Sattar Dorafshan** from the University of North Dakota, USA, was the speaker of this webinar. He is an Assistant Professor of Civil Engineering and is the director of the Sustainable Infrastructure Research Initiative at the College of Engineering and Mines, and he co-directs the Transportation Technology Research Initiative supported by the North Dakota Department of Transportation. He was a postdoctoral research fellow at the Federal Highway Administration's Turner-Fairbank Highway Research Center from 2019 to 2020. He graduated with B.Sc., M.Sc., and Ph.D. degrees in Civil Engineering from University of Tabriz, Isfahan University of Technology, and Utah State University, respectively.

**Prof. Mahdi Nasimifar**, a faculty member of the Department of Civil engineering at IUT was the host and organizer of this event.



Prof. Sattar Dorafshan

### Holding the Third Interdisciplinary Scientific Meeting at IUT

The third lecture of the series of interdisciplinary lectures of Isfahan University of Technology was dedicated to the scientific lecture on "**Statistical Machine Learning for Analyzing the Brain Connectome**" presented by **Prof. Ali Shojaei**, an Iranian professor at the University of Washington and an elected member of the American Statistical Association (ASA).

This meeting was hosted by Isfahan University of Technology and was held online on July 20, 2022. Prof. Shojaei is an associate professor of biostatistics & statistics. He is the director of the Summer Institute for Statistics in Big Data (SISBID) at the University of Washington. Read more...



Prof. Ali Shojaei

### A Webinar by the Department of Natural Resources Engineering of IUT

The Vice-Dean for research of the Department of Natural Resources Engineering, Isfahan University of Technology, in cooperation with the Science and Technology Committee of the Working Group on Combating Desertification, organized an online scientific meeting on the occasion of the World Day to Combat Desertification on July 8, 2022.

In this meeting, **Prof. Wang Yangdong** from China, **Prof. Hossein Khademi**, a professor of the Department of Agricultural Engineering, **Prof. Reza Jafari**, an assistant professor of the Department of Natural Resources Engineering, **Hosseinali Narimani**, technical deputy of the General Directorate of Natural Resources and Watershed Management of Isfahan Province, and **Prof. Mohsen Soleimani**, an assistant professor of the Department of Natural Resources Engineering, who is also the Vice-Dean for the research of this department presented their lectures.



### *Initiating an Innovation and Technological Ecosystem Center in IUT in Cooperation with Mobarakeh Steel Company*

A joint cooperation agreement is signed between **IUT** and **Mobarakeh Steel Technology Development Company** to establish the first steel innovation and technology center in the country. The most important goal of establishing this center in IUT is to develop and strengthen the technological ecosystem. Also, the technology teams and units related to startups will be supported, and research grants procedures for the steel industry will be facilitated. **Prof. Hamidreza Safavi**, Vice-president for Research and Technology of IUT, expressed that the foundation of a technological ecosystem is crucial in the development of third and fourth generation universities. He also pointed out that the development of industry will cause an increase of joint projects with universities to provide opportunities for faculty members for conducting research in industry.

**Dr. Yahya Palizdar**, CEO for Innovation and Development of Mobarakeh Steel Co., stated that nearly 70% of the employees of Innovation and Development Center of Mobarakeh Steel Co. are graduates of Isfahan University of Technology, and the capacity of this university undoubtedly contributes to the growth and development of the country.

Stating that the Innovation Center of Mobarakeh Steel Co. aims to multiply investment opportunities in universities, he asserted that establishing an office at IUT leads to create opportunities to cooperate with students and academic elites. It is worth mentioning that developing advanced steel products, developing the raw materials and the alternative consumables, moving in pace with the developments of the 4th industrial revolution, circular economy and developments in climate change are among the initiatives that would happen in IUT-MSC technology ecosystem.





### The Journal of the American Medical Informatics Association (JAMIA) Announces that Iran is ranked 2nd Worldwide for Publishing Papers on Data Mining in Biomedical Texts

On June 2021, in a report entitled “Systematic Review of Automated Text Summarization for Biomedical Literature and Electronic Health Records (EHRs)”, it is mentioned that Iran is ranked 2nd, after the United States, for publishing papers on data mining in medical texts.

It is reported that all 7 Iranian papers have been published by young Iranian students and researchers under the supervision of **Prof. Nasser Ghadiri**, an associate professor at Isfahan University of Technology (IUT).



Prof. Nasser Ghadiri



Ms. Davoodi Jam



Mr. Moradi



Ms. Nasr-e Azadani

**Ensie Davoodi Jam**, a PhD student in Computer Engineering at IUT, published the results of her doctoral dissertation as a paper and under the supervision of **Prof. Nasser Ghadiri** from IUT and the advice of **Prof. Fabio Rinaldi** from the University of Zurich, Switzerland; this study deals with the subject of “summarizing based on multilayer graphs”.

**Milad Moradi** and **Mojgan Nasr-e Azadani**, two MSc students of IUT, are among the other authors of the Iranian papers in JAMIA who published their findings based on their master’s theses and under the supervision of Prof. Ghadiri; their studies were about “the methods of exploring rules and probabilistic inference”.

According to this report, the United States is ranked 1st with 8 papers, Iran is ranked 2nd with 7 papers, and China is ranked 3rd with 6 papers in the field of data mining of medical texts. There are also 10 multinational papers in this list.

To access the paper of American Medical Informatics Association, visit the following website address:

<https://academic.oup.com/jamia/article/28/10/2287/6335523>

Information about the projects and papers of the Data Research Laboratory and the Department of Electrical and Computer Engineering of IUT can be accessed through the following address:

<https://dkr.iut.ac.ir>





## *2022 ICS Outstanding Chemist Award*

### **"Quantum Computational Study of Large Size Systems: ONIOM Method "**

**Prof. Hossein Farrokhpour**  
Isfahan University of Technology, Iran



**Prof. Hossein Farrokhpour**, a member of the IUT Department of Chemistry, was honoured by the Iranian Chemical Society as an outstanding chemist in the field of Physical Chemistry.

In the opening ceremony of this congress, which was held on the 4th of August, hosted by Shahid Madani University of Azerbaijan, six professors were commended and honoured as prominent national chemists in four fields of physical chemistry, organic chemistry, inorganic chemistry, and analytical chemistry.

Prof. Farrokhpour presented his scientific lecture on the topic of quantum calculations as a guest professor in this congress. He pursues his research in quantum chemistry and molecular spectroscopy.

So far, he has published 237 papers in these two research fields in prestigious scientific journals, either individually or in collaboration with other researchers. He also bears the title of the best researcher in basic sciences of IUT and Isfahan province in 2014.



### A Professor of IUT was lauded as an Exemplary Professor of the Country



Prof. Hamedani Golshan

In the presence of the State President, **Prof. Mohammad Esmaili Hamedani Golshan**, a professor of the Department of Electrical and Computer Engineering of IUT, was commended as one of the country's exemplary professors.

In this ceremony, which was held on July 4th, in the presence of the State President and the Minister of Science, Research, and Technology, 36 exemplary national faculty members and 18 exemplary students of the country's universities were lauded and honored.

Prof. Hamedani Golshan is a B.Sc. graduate of Isfahan University of Technology (1987), an M.Sc. graduate of Sharif University of Technology (1990) and a PhD graduate in Electrical Engineering from Isfahan University of Technology in 1998.



He was the IUT President from 2009 to 2013, and the head of the Electrical Group of the Department of Electrical and Computer Engineering from 2002 to 2005, as well as the Vice-president for Education at IUT from 2005 to 2008.

As for his career records, it is worth mentioning that he was also commended as an exemplary professor of graduate studies in 2019; he has been a member of the research committees of Isfahan Regional Electricity Company, Isfahan City Electricity Distribution Company, Isfahan City Train Company, and a scientific referee of several national and international conferences.

Prof. Hamedani Golshan is the author of three books in the field of Power Distribution, Relay and Protection Systems, and published more than 100 scientific papers in prestigious international journals, and also supervised 100 graduate students during his academic career.

He became a senior member of the IEEE organization in 2019 due to his participation in power system research. He has also refereed several international journals published by IEEE, IET, Elsevier, and Springer.





## Upcoming Events & International Opportunities

### A Workshop on "Modern Trends in Computational Materials Discovery"

There will be a joint workshop with the USPEX team and the Physics Department of Isfahan University of Technology (IUT).

This workshop aims to provide computational methods for discovering new materials and, ab initio predicting material properties. This program

contains scientific lecture sessions in the morning and workshop sessions in the afternoon. The major part of the time of the workshops is devoted to teaching the USPEX code by the USPEX team. USPEX code is one of the most successful packages in predicting new material structures with specific properties, which works based on evolutionary algorithms. The scientific lectures would cover the following subjects: DFT and electronic structure, Machine learning and Data science, Novel material properties, Magnetic materials, Evolutionary algorithm and global optimization, and Materials discovery and design.

### Modern trends in Computational Materials Discovery

17 - 21 November 2022

#### ⇒ Important Dates:

Deadline for online registration: September 30, 2022

Conference dates: November 17-21, 2022

For registration and further information please visit: <https://qsm.iut.ac.ir/workshop-iut-uspex>

Read more...



### Call for Applications:

#### Research-in-Residence Fellowships at the University of Passau, Germany, for 2022 and 2023



Senior and Junior Researchers (with a doctorate) from and outside the University of Passau are invited to apply for funding in the new PICAIS funding programs.

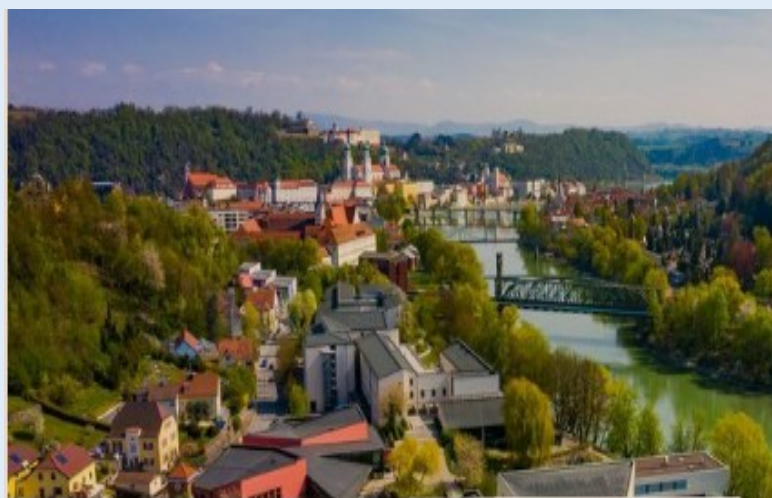
The University of Passau as a partner university of Isfahan University of Technology has announced the following call for research-in-residence fellowships among the relevant faculties or units.

The program invites applications from young researchers at postdoctoral levels as well as from internationally established researchers who are engaged in research in the humanities, social sciences, economics, law, computer science, and mathematics.

The flyer can be downloaded [here](#).

- The deadline for applications is October 17, 2022 for fellowships in 2022 and 2023.

Read more ...



In order to expand the university's international scientific interactions with overseas academic institutions, the IUT International is publishing this electronic Newsletter on international relations in line with the IUT mission toward a Green University.

You are invited to register your email here to receive every new issue of the Newsletter upon its publication. You can also correspond with the editorial board from here to convey your valuable comments and suggestions to send materials related to IUT to be published in future issues of the Newsletter.

To see the previous issues and more information on the newsletter, please click [here](#).

In addition to being distributed via social networks, this Newsletter will also be available through the following QR code. Your constructive participation in this path will guide us toward our goals.



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Your constructive and valuable comments and suggestions are most welcome.

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