

**МІНІСТЕРСТВО ОСВІТИ І НАУКИ УКРАЇНИ
СУМСЬКИЙ ДЕРЖАВНИЙ УНІВЕРСИТЕТ
ФАКУЛЬТЕТ ІНОЗЕМНОЇ ФІЛОЛОГІЇ
ТА СОЦІАЛЬНИХ КОМУНІКАЦІЙ**



СОЦІАЛЬНО-ГУМАНІТАРНІ АСПЕКТИ РОЗВИТКУ СУЧАСНОГО СУСПІЛЬСТВА

**МАТЕРІАЛИ V ВСЕУКРАЇНСЬКОЇ НАУКОВОЇ КОНФЕРЕНЦІЇ СТУДЕНТІВ,
АСПРАНТІВ, ВИКЛАДАЧІВ ТА СПІВРОБІТНИКІВ**

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not humane and only in the XVIII-XIX century the searching for remedy for aging belongs to scientific field.

The discovery of telomerase made it possible to explain the nature of aging. The first experiments on the implementation of genetic designs in human body allowed deferring the aging process to almost a quarter of a century.

We can only guess what the consequences would be...

THE ADVANTAGES OF DOCUMENT MANAGEMENT SYSTEM FOR THE ELIT FACULTY

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Nowadays everybody interacts with different kinds of documents. Everyday job of companies' and universities' staff involves a huge paperwork. Janitors, delivery staff, trips guides and others deal with paperwork when they apply for a job and quit it. But most of them don't even think about the possibility to make their everyday work much easier and more effective. A student of the ELIT faculty can come to the dean's office with a document that needs to be signed by the dean, and this student may wait for response for more than one month. This is more than inefficient and time-consuming, but it's not the fault of the deanery staff. Paperwork is expensive and takes a lot of time, because there are hundreds of other students with their documents to be handled. Document Management System (DMS) will be an effective solution to the problems of students and deanery staff. Document Management System is an electronic system designed to store, manage and organize paper documents using software. There are some benefits of DMS that can help our faculty departments to work more productively. DMS stores the scanned files on servers, but not in physical archives. These servers contain all e-documents and take less storage space than the paper documents in the archive of faculty departments. A well-designed DMS will work correctly on different platforms such as computers, tablets, smartphones etc. The software interface should be simple and easy to navigate. Not everyone is technologically educated, so the simpler the software is, the better it is. Security is one of the most critical aspects of a document management system. The good DMS software will provide a high level of documents encryption and role based access. DMS can be used by every university, because each university deals with a huge number of student documents every day. Universities also store confidential data of their students, and DMS provides high security level of data storages. The

features and benefits that come along with implementing a well-designed document management system can impact every part of our university, and ignoring them in today's education climate is nothing short of irresponsibility.

ASSESSMENT OF SURFACE CRACK STRENGTH FOR STORAGE OF LIQUEFIED NATURAL GAS

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The main element of any tank is its housing. The housing of the tank isolates work environment, being subjected to its chemical exposure, it sees mechanical and thermal loads as well. Therefore, the reliability of the tank depends on the reliability of its case. The main characteristic of the reliability of housing is its strength. Loss of tank strength leads to its destruction, the consequence may be large economic losses, environmental pollution and damage to human life.

There are many factors, which help to analyze fracture mechanics. But in this work we used one of them. This method gives all information about crack problems.

Calculation of the strength of the tank should be done for all conditions arising during operation of the tank including external factors and stress. Loss of strength is often associated with fracture of structural elements or deformation. The root cause of them is the origin and development of cracks and creep in the body of structures. The reason of fatigue cracks is metal, which is determined by many factors.

To assess the impact of cracks on the tanks the calculation of ground storage tanks of liquefied gas without and with semi-elliptical surface cracks has been made. The calculation was done by the ANSYS Student software system. According to the rules and methods of strength of vessels and apparatus under pressure calculation was performed for three pressure kinds: working- 1.6 MPa; calculating - 1.8 MPa; hydrotesting - 2.3 MPa.

As a result of calculation, the comparative analysis of the stress-strain state of the reservoir with and without cracks had been fulfilled. We received distributions of equivalent stresses, stress intensity factors at the crack tips, movement and strength factors. We also created stress intensity factors to be depended on the crack front.