

Master in Inginierie Geotehnica



“Seriozitate si Performanta”

Master in Inginierie Geotehnica



<https://youtu.be/xaVaFwZ34-o>

VA

please tell me why is so important geotechnical engineering?



Geotechnical engineering is an important field of engineering that deals with the study of the behavior of the earth materials such as soil, rock, groundwater, and their interaction with structures. There are several reasons why geotechnical engineering is important:



1. Ensuring the safety of structures: Geotechnical engineers play a critical role in ensuring the safety of structures such as buildings, bridges, and dams. They analyze the soil and rock conditions to determine the appropriate foundation design, which can prevent structural failures due to issues such as settlement, slope instability, and liquefaction.
2. Environmental protection: Geotechnical engineering also plays a significant role in environmental protection. Geotechnical engineers can provide solutions to prevent contamination of soil and groundwater and mitigate soil erosion. They also help with the design and construction of structures that are environmentally sustainable.
3. Natural disaster management: Geotechnical engineering is critical in managing natural disasters such as landslides, earthquakes, and floods. Geotechnical engineers can provide advice on how to build structures that are more resilient to these disasters, as well as design solutions to prevent or mitigate the impact of natural disasters.
4. Resource exploration: Geotechnical engineering is important in resource exploration, such as mining and oil and gas exploration. Geotechnical engineers analyze the geology and geotechnical conditions of the site to determine the feasibility of mining and drilling operations.

Overall, geotechnical engineering is essential in ensuring the safety, sustainability, and environmental protection of structures and natural resources.

 VA

why should I join a Master in geotechnics?



There are several reasons why you should consider pursuing a Master's degree in geotechnical engineering:



1. Career opportunities: A Master's degree in geotechnical engineering can open up a wide range of career opportunities in industries such as construction, mining, oil and gas, and infrastructure development. With a Master's degree, you can qualify for higher-level positions with greater responsibility and higher salaries.
2. Specialized knowledge: A Master's degree in geotechnical engineering provides you with specialized knowledge in the behavior of soil and rock materials, foundation design, and ground improvement techniques. This knowledge is essential for designing and constructing safe and sustainable structures and mitigating the risks associated with natural hazards.
3. Research opportunities: A Master's degree in geotechnical engineering provides you with the opportunity to conduct research in areas such as soil mechanics, foundation engineering, and geotechnical earthquake engineering. This can help you to contribute to the development of new technologies and techniques for designing and constructing safer and more sustainable structures.
4. Professional development: Pursuing a Master's degree in geotechnical engineering can help you to develop your professional skills, such as critical thinking, problem-solving, and communication. These skills are highly valued in the engineering industry and can help you to advance your career.

Overall, a Master's degree in geotechnical engineering can provide you with the knowledge, skills, and opportunities to pursue a fulfilling and rewarding career in the engineering industry.

 Regenerate response

DE CE Master in Inginerie Geotehnica ?

Evolutie Profesionala!

**Te formezi ca specialist intr-un domeniu in
care este NEVOIE de Specialisti!**

Mobilitati Europene, EUT+

De ce Master in Inginerie Geotehnica ?

**Posibilitatea de a utiliza programe de calcul
specifice in ingineria geotehnica!**

**Posibilitatea de a efectua Lucrari Practice
si de Actualitate!**

**Posibilitatea de a lucra in cadrul unui laborator
dotat la nivel european!**

Ce vei sti sa faci?

SĂ RECUNOȘTI GEOLOGIA ȘI GEOMORFOLOGIA UNEI ZONE, SĂ STABILEȘTI INVESTIGAȚIILE CARE SE PRETEAZĂ PENTRU FIECARE TIP DE LUCRARE

SĂ IDENTIFICI CAUZELE DEGRADARILOR CONSTRUCȚIILOR ȘI SĂ PROIECTEZI SOLUȚII DE CONSOLIDARE

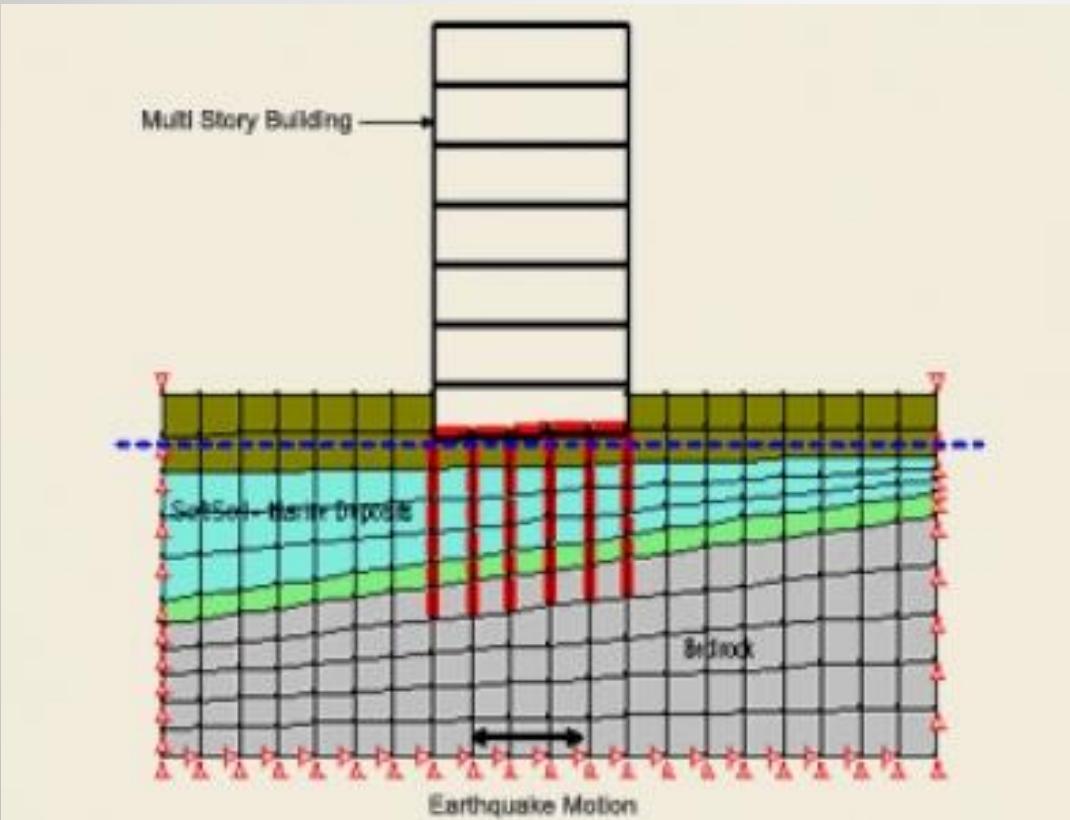
PROIECTARE. SĂ UTILIZEZI PROGRAME DE CALCUL ÎN PROIECTAREA GEOTEHNICĂ;

EXECUȚIE. SĂ FOLOSEȘTI TEHNOLOGII ȘI MATERIALE MODERNE CARE OFERĂ AVANTAJE TEHNICO-ECONOMICE CONSIDERABILE

MONITORIZARE. SĂ UTILIZEZI APARATURA MODERNĂ DE VERIFICARE A CALITĂȚII ȘI SIGURANȚEI SISTEMELOR DE FUNDARE.

Ce vei studia?

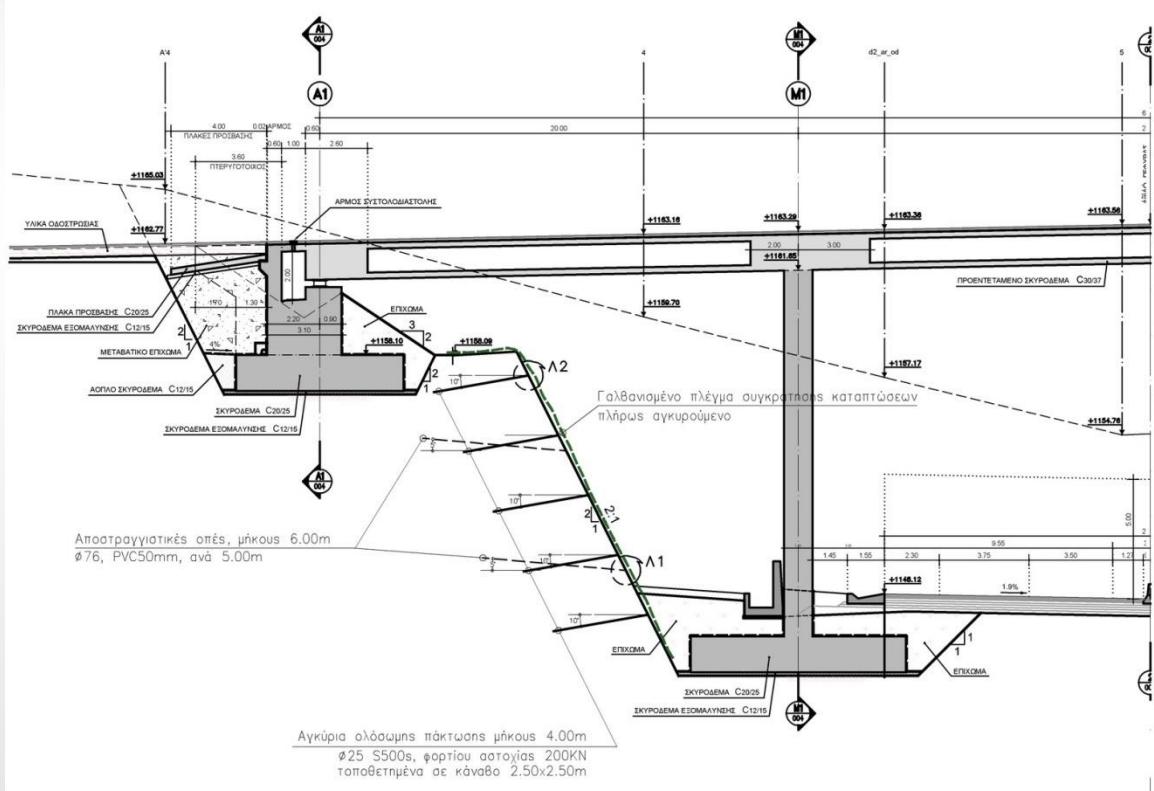
SUPRASTRUCTURI



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Ce vei studia?

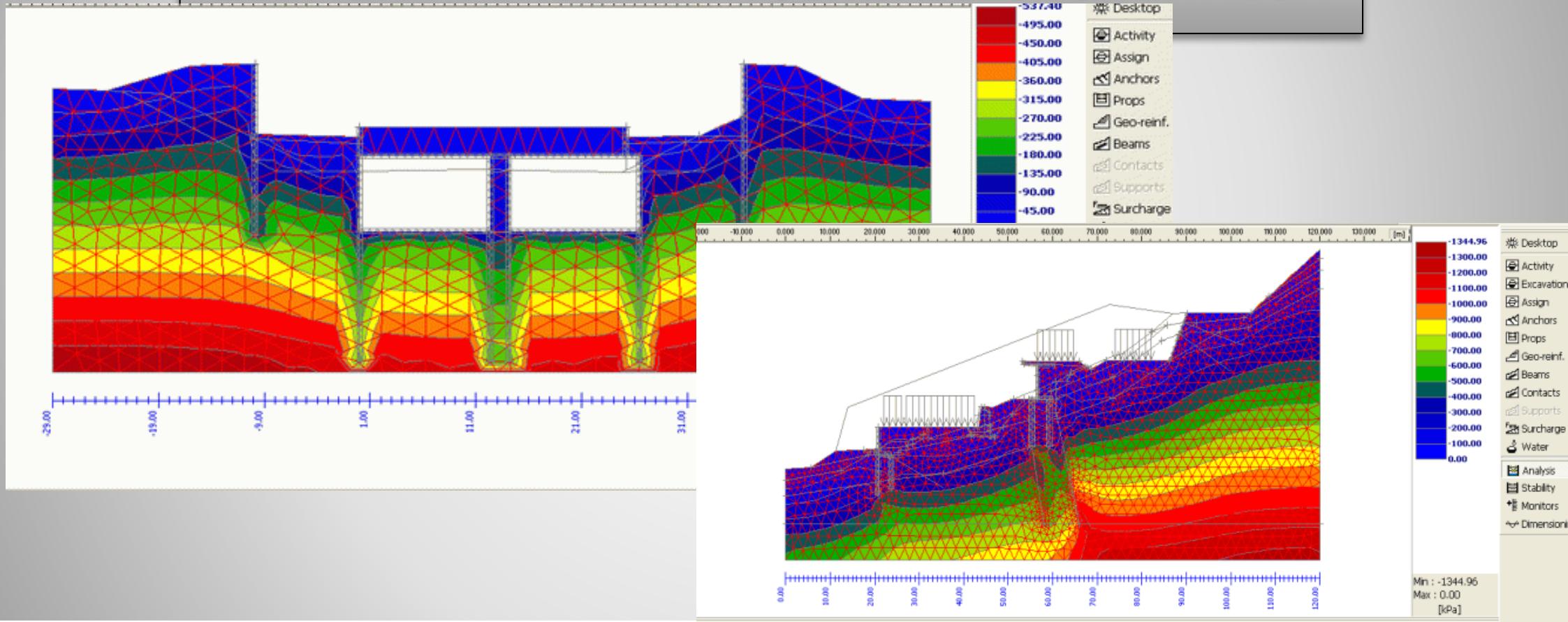
INGINERIA INFRASTRUCTURII TRANSPORTURIILOR



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Ce vei studia?

ELEMENT FINIT IN INGINERIE GEOTEHNICA



MASTER INGINERIE GEOTEHNICA

Ce vei studia?

METODE DE INVESTIGARE A TERENULUI DE FUNDARE



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Ce vei studia?

METODE DE INVESTIGARE A TERENULUI DE FUNDARE



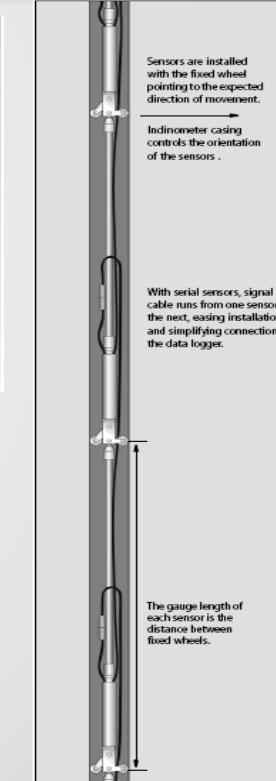
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Ce vei studia?

METODE DE INVESTIGARE A TERENULUI DE FUNDARE



**Cercetare
pe teren**



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Ce vei studia?

METODE DE INVESTIGARE A TERENULUI DE FUNDARE



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Ce vei studia?

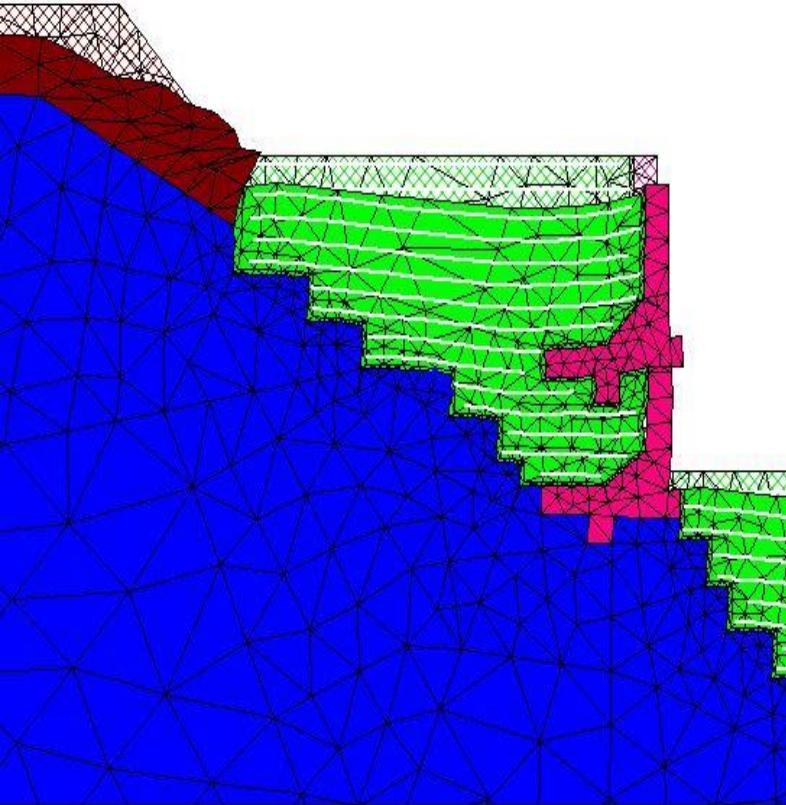
METODE DE INVESTIGARE A TERENULUI DE FUNDARE



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Ce vei studia?

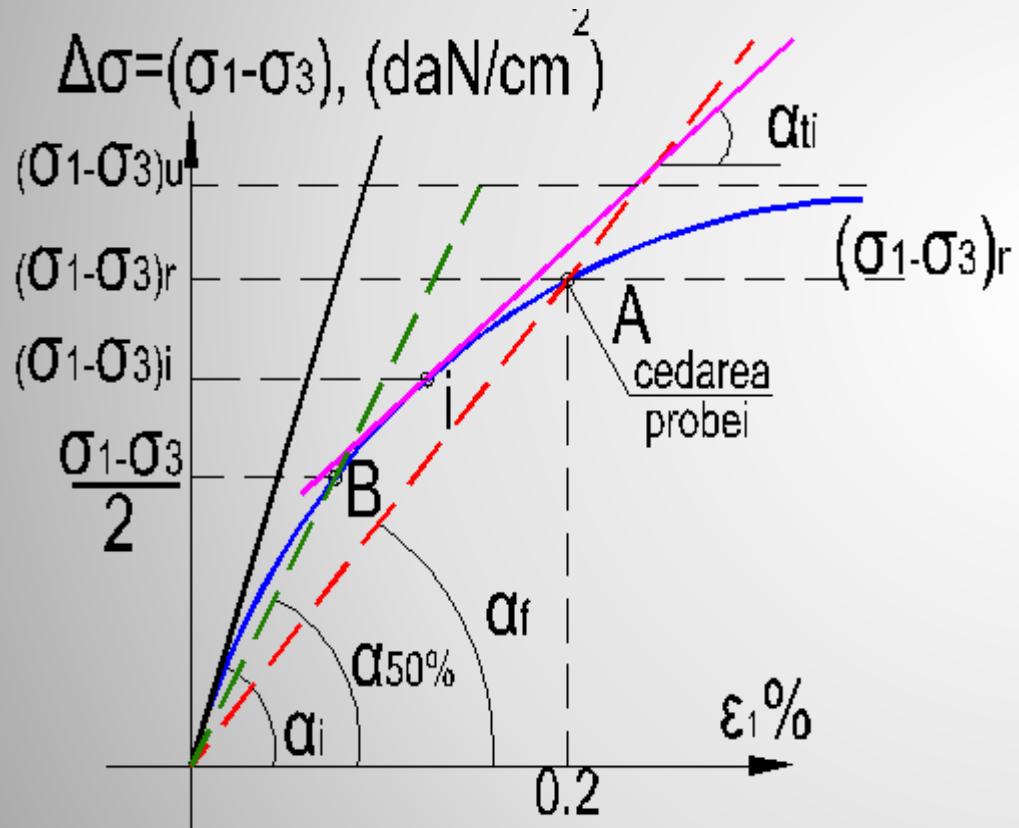
GEOSINTETICE



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Ce vei studia?

MECANICA PAMANTULUI

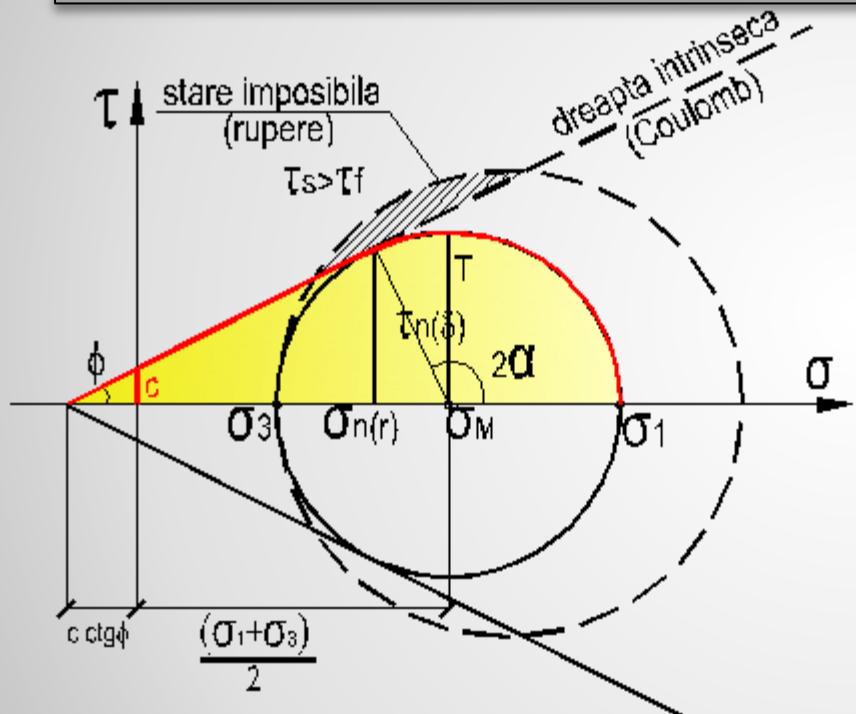


**determinare
prelucrare
parametri geotehnici
interpretare**

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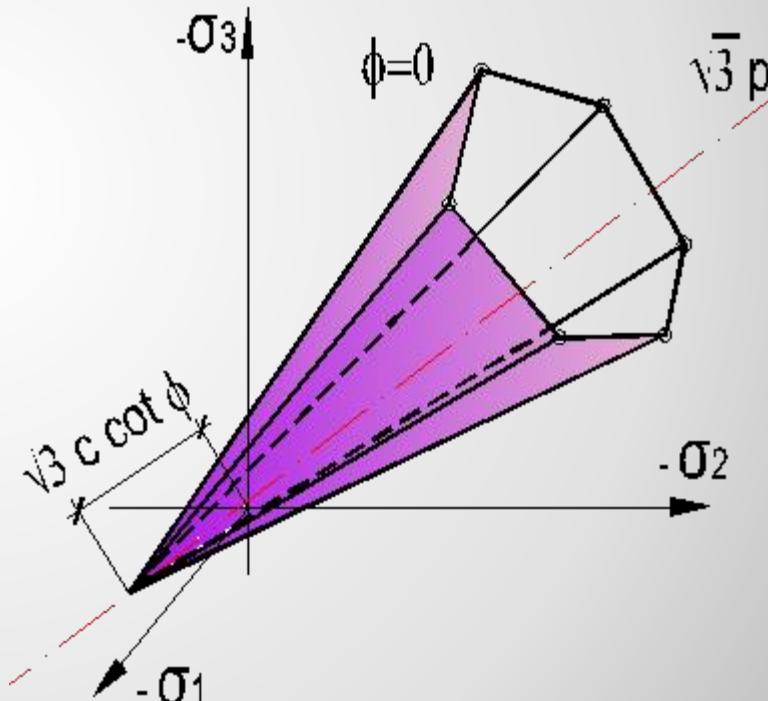
Ce vei studia?

MECANICA PAMANTULUI



Incercari triaxiale

Modele de calcul



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Ce vei studia?

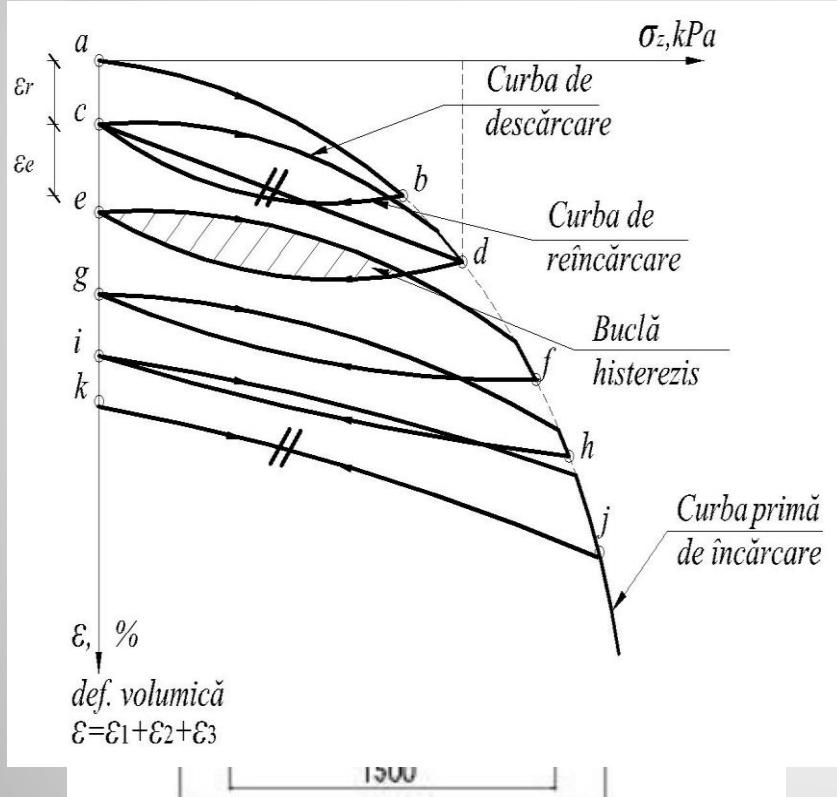
STRUCTURI DE SPRIJIN IN INGINERIA GEOTEHNICA



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Ce vei studia?

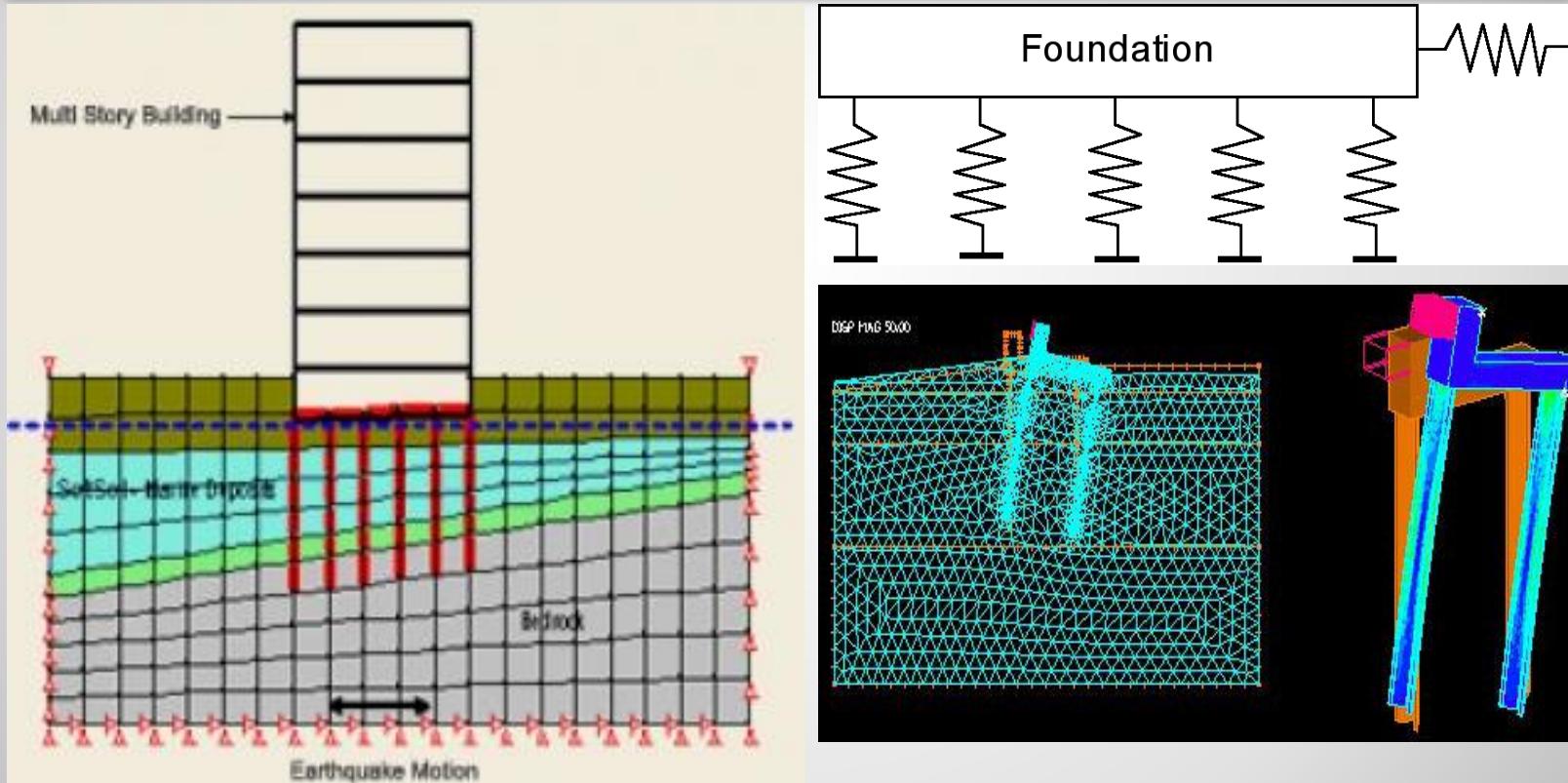
COMPORTAREA PAMANTULUI LA SOLICITARI DINAMICE



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Ce vei studia?

PROBLEME SPECIALE PRIVIND CONLUCRAREA



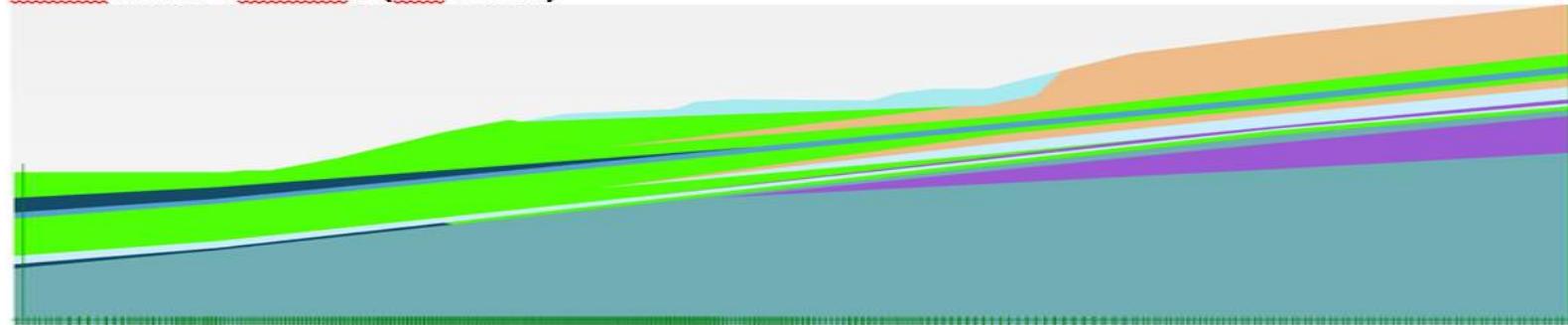
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Ce vei studia?

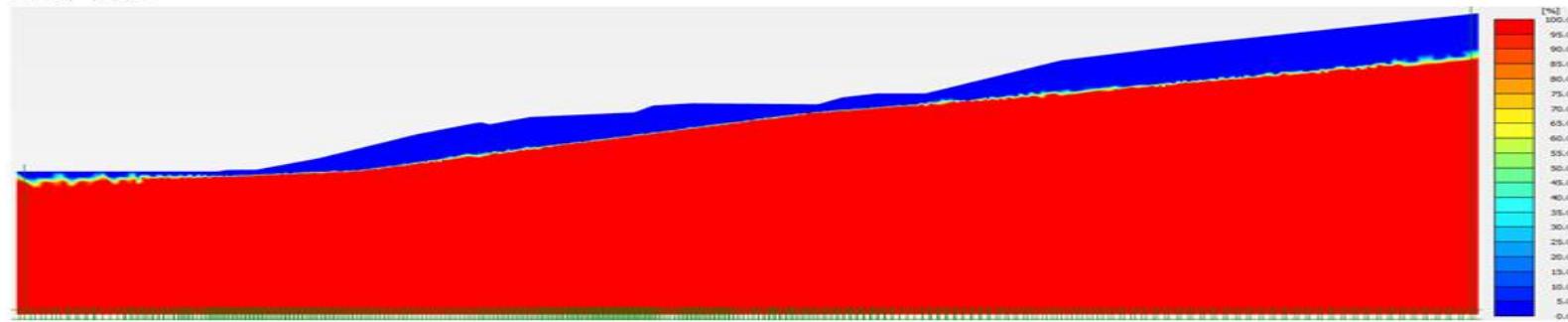
STABILITATEA PANTELOR SI VERSANTIILOR

Rezultate analize

Stadiu initial – analiza 1 (asa cum e)



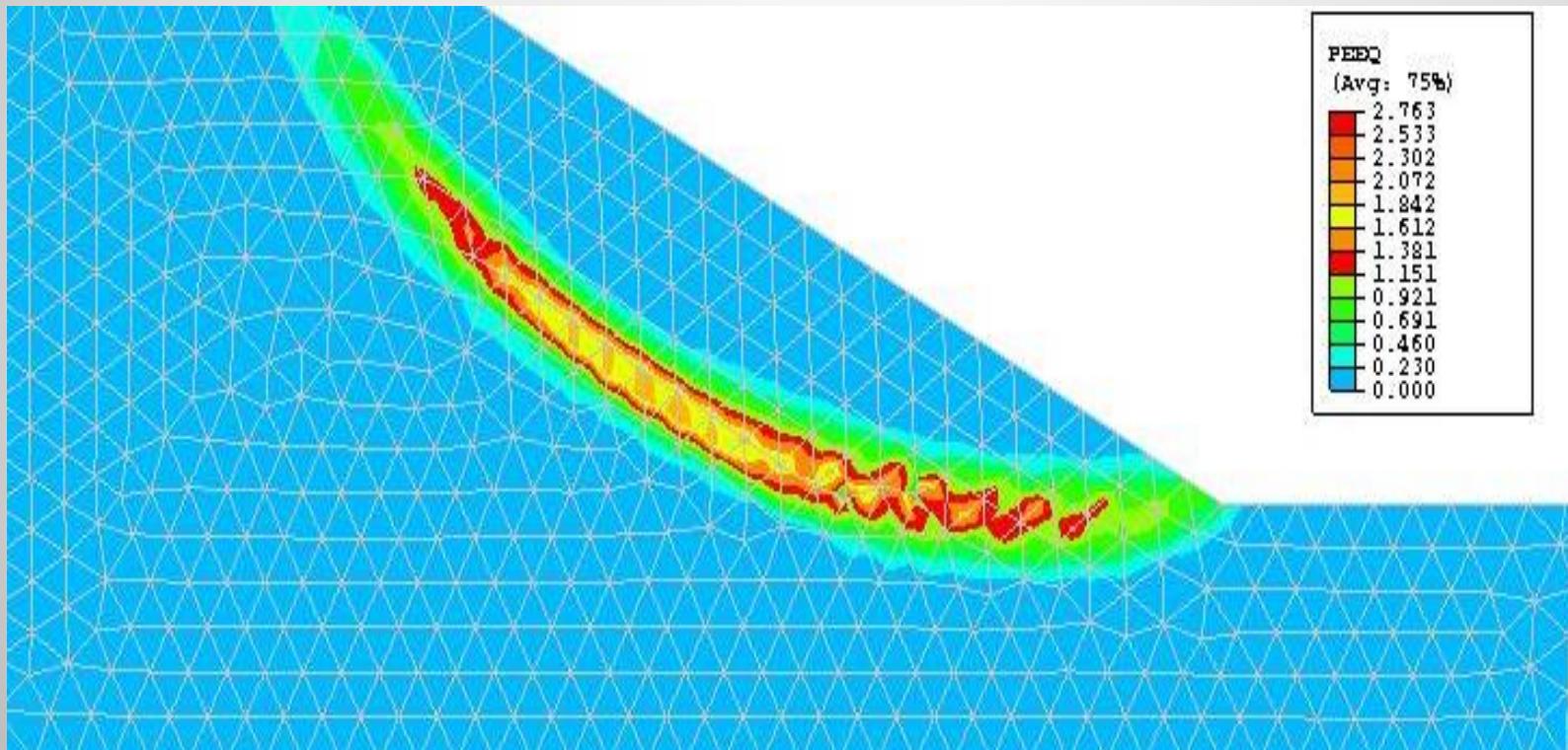
Nas -> Sr



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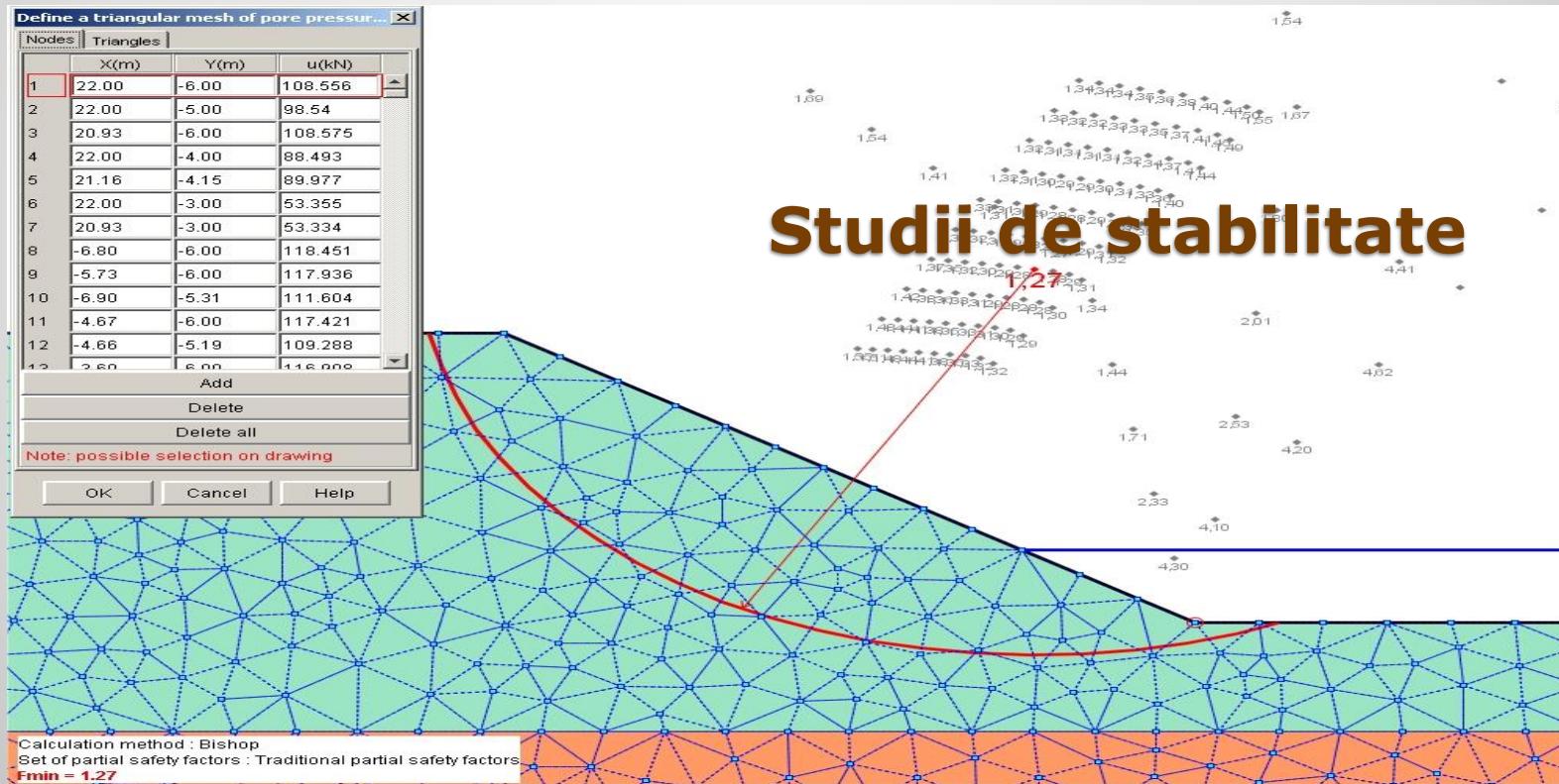
STABILITATEA PANTELOR SI VERSANTILOR



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Ce vei studia?

STABILITATEA PANTELOR SI VERSANTILOR



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Ce vei studia?

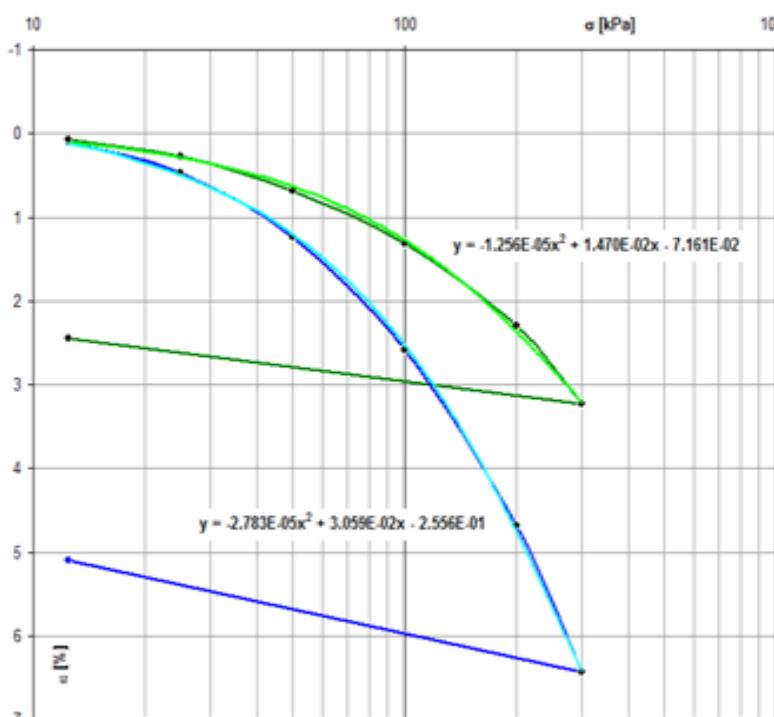
**TEHNOLOGII SPECIALE IN INGINERIA
GEOTEHNICA**



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Ce vei studia?

TERENURI DIFICILE



NORMATIV PRIMIND FUNDAREA CONSTRUCȚIILOR PE PĂMÂNTURI SENSIBILE LA UMEZIRE

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Ce vei studia?

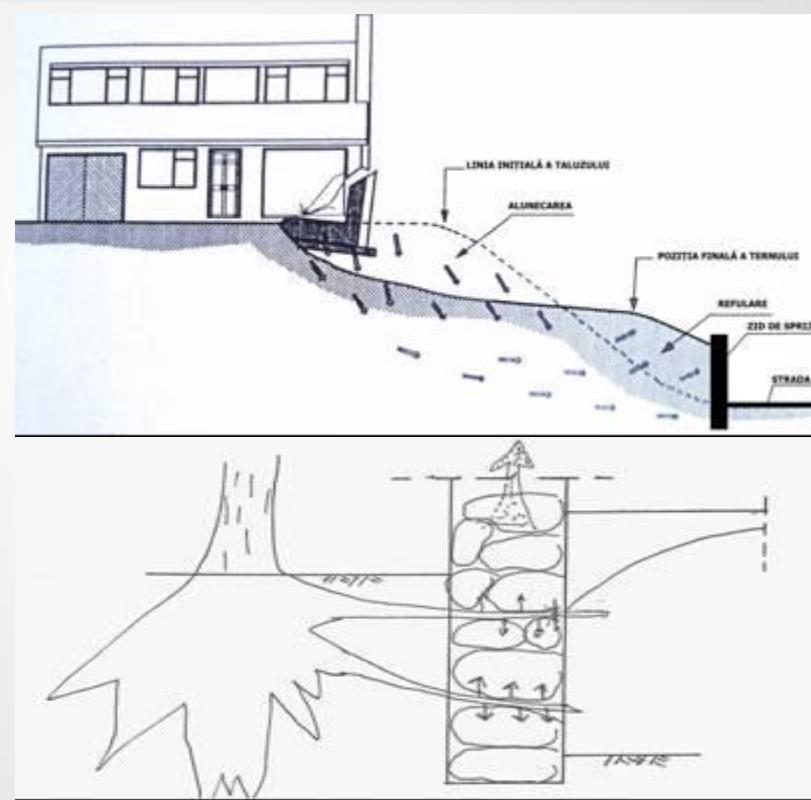
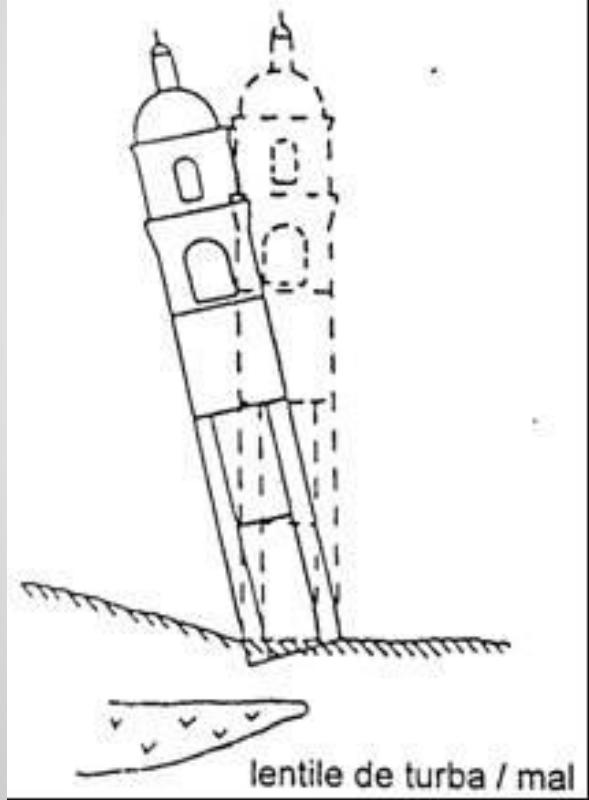
TERENURI DIFICILE



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Ce vei studia?

DEGRADARI LA FUNDATII

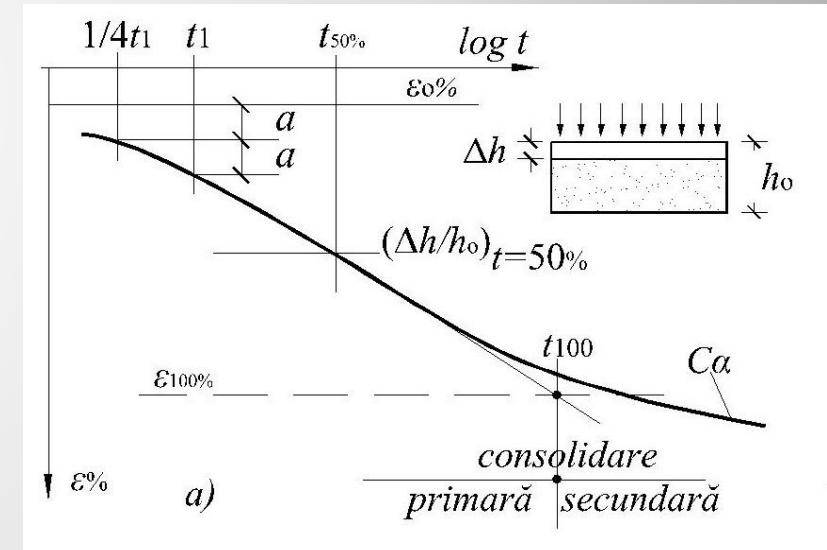


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Ce vei stii sa faci?

Determinare parametrii geotehnici pentru diverse modele de calcul: TE, MC, HSM, HSMSS, SS

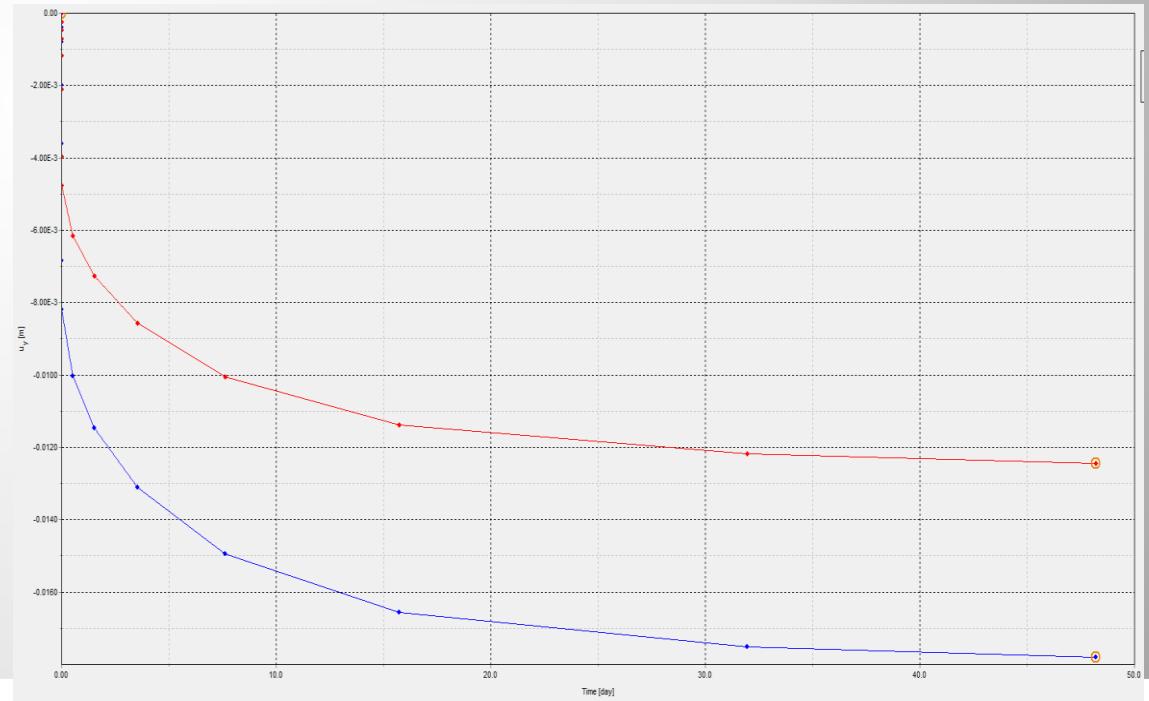
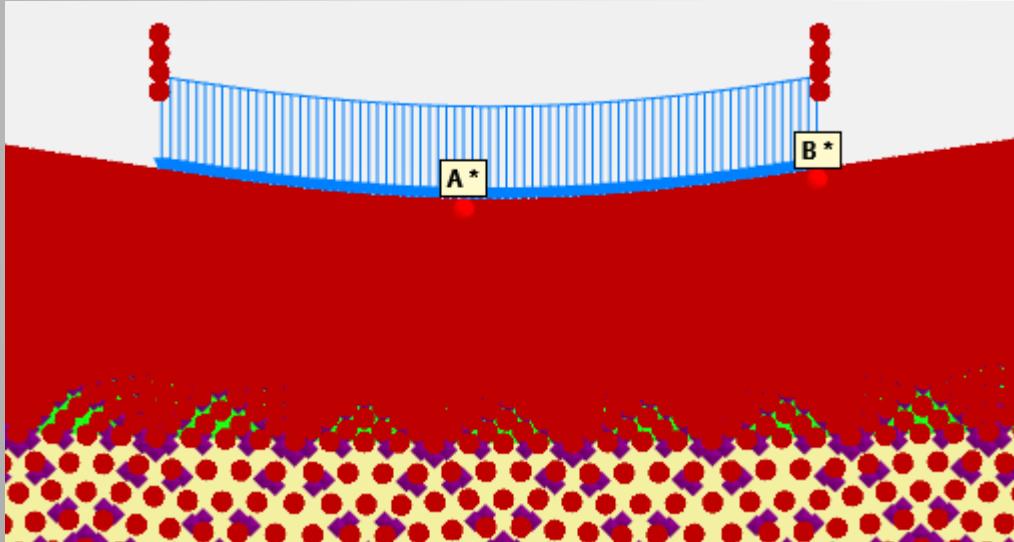
Soil
Density γ (dry / Sat) (KN/m ³)
Friction Angle ϕ^0
Cohesion, C' (kPa)
Poisson ratio, ν' _{ur}
E_{50}^{ref} (kPa)
$E_{\text{oed}}^{\text{ref}}$ (kPa)
$E_{\text{ur}}^{\text{ref}}$ (kPa)
Power (m)
OCR
Initial Void Ratio e_0
K_d
Conditions



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Ce vei stii sa faci?

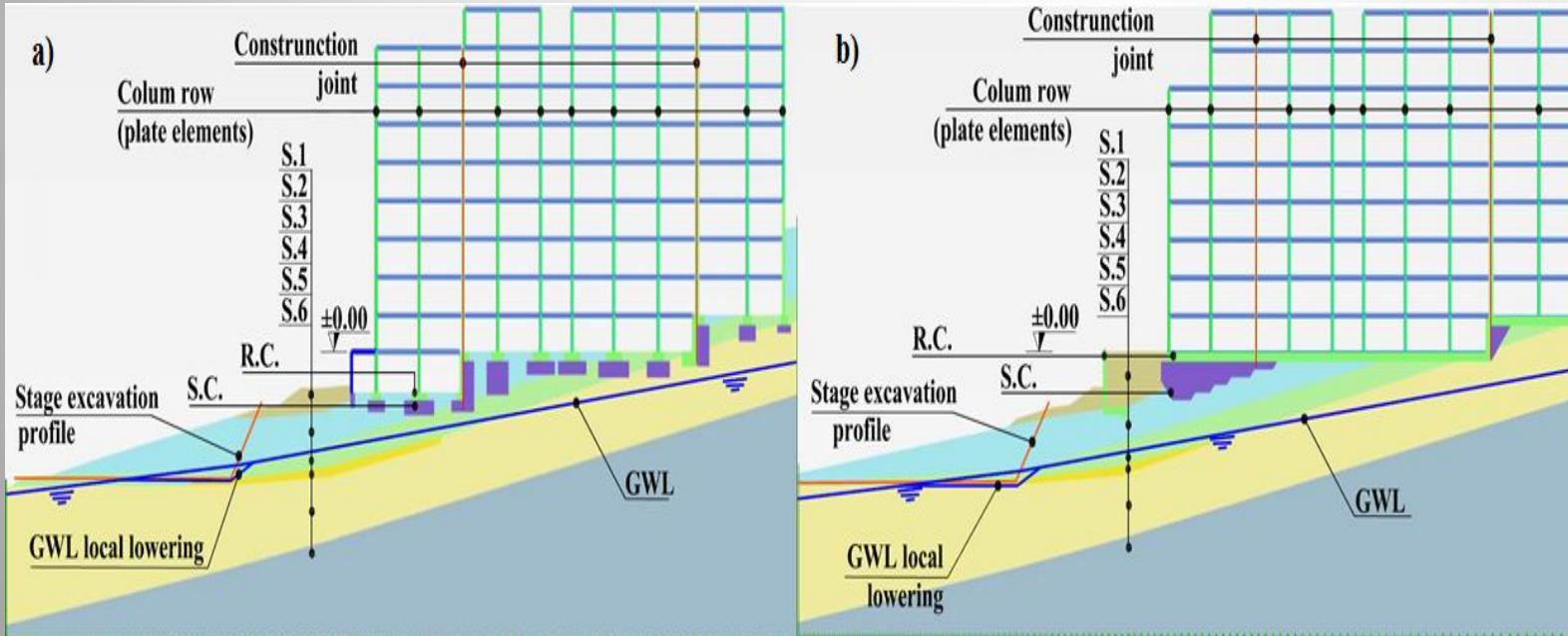
Analiza deformatiilor in timp



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Ce vei stii sa faci?

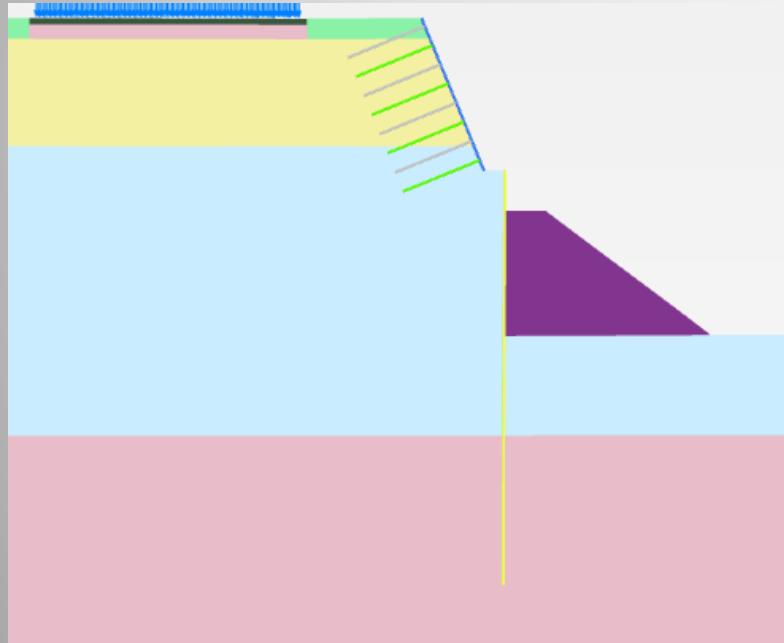
ANALIZE COMPLEXE DE STABILITATE



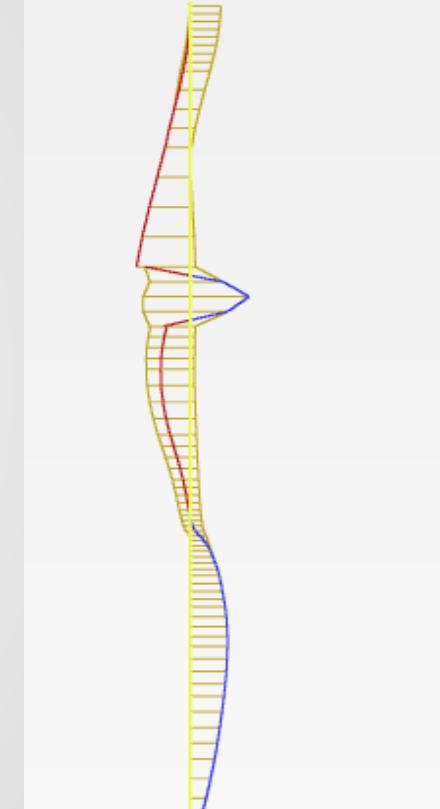
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Ce vei stii sa faci?

SAPATURI IN ZONE URBANE



Envelope of Bending moments M (scaled up 5)
Maximum value = 59.53 kN m/m (Element 22 at
Minimum value = -198.5 kN m/m

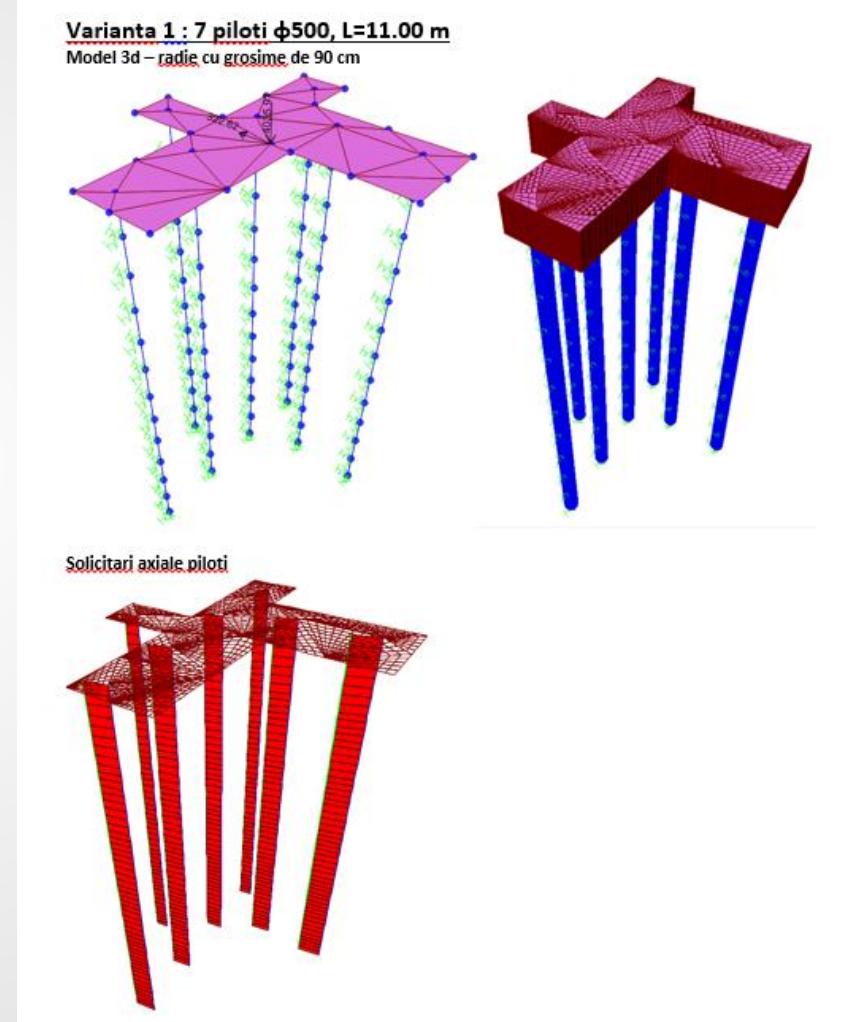


Envelope of Shear forces Q (scaled up 5.0)
Maximum value = 121.5 kN/m (Element 23 at
Minimum value = -110.7 kN/m

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Ce vei stii sa faci?

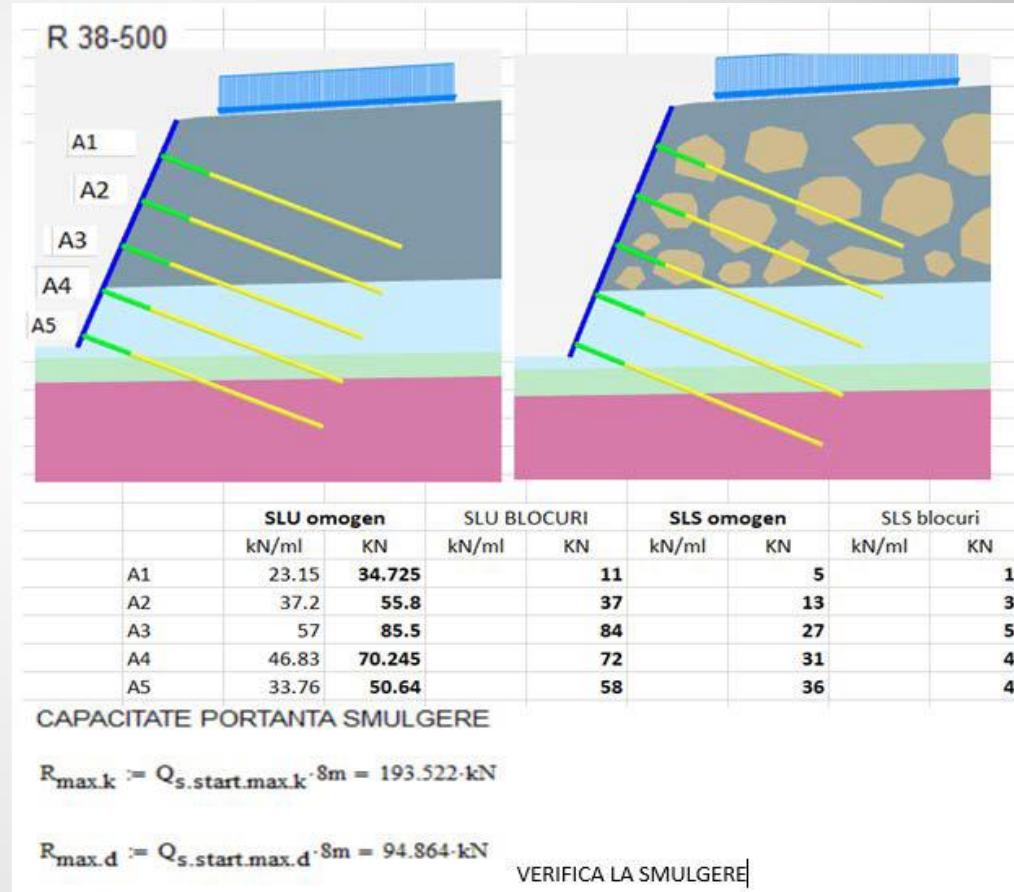
CALCUL STRUCTURAL - TEHNOLOGII



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Ce vei stii sa faci?

SPRIJINIRI - TEHNOLOGII



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VIITORUL TI-L DECIZI SINGUR!



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