

# SIVIELE INGENIEURSWESE SKRIPSIE VOORLEGGINGS

19 Oktober 2011  
Program

18:00	Verwelkoming	Prof CP Roth
18:10	Studente Voorleggings:	
	Ryan Cassells	
	Dario da Silva	
	Ilana Kriel	
	Gina Skinner	
	Brendan van Schoor	
19:00	Oorsig	Prof EP Kearsley
19:05	Oorhandiging van skripsieprys	Prof CP Roth
19:15	Bedanking	Prof CP Roth

Verversings beskikbaar na voorleggings

Nr	Name	Topic	Field
1	Botha, JP	Determining the potential of bubble-plume destratification as a successful means of reducing evaporation losses from open water bodies in SA	Hydraulics
2	De Beer, JA	Asset management: hydraulic performance of large diameter water pipelines	Hydraulics
3	Loggenberg, TH	Asset management: Guidelines on the condition assessment of water service infrastructure	Hydraulics
4	Olivier, LP	Review the energy losses at couplings	Hydraulics
5	Potgieter, FD	Investigation of the destratification of a water body by forming a bubble plume at depth, which could potentially suppress evaporation	Hydraulics
6	Cassells, RO	Hydropower generating potential of pressurized conduits	Hydraulics
7	Van der Merwe, JE	Determining the feasibility of generating hydropower from pressurized conduits	Hydraulics
8	Deosaran, S	Assessing the sustainability of public transport projects in Gauteng	Environmental
9	Kader, H	The effect of a modal shift from private to public transport on the environment and user	Environmental
10	Mbatha, NN	Investigation of typical injuries that influence productivity loss on construction sites	Environmental
11	Dickson, J	The determination of the levels of service at public transport stations through creating an appropriate tool: A questionnaire survey	Transportation
12	Lindford, NW	Study of airport capacity	Transportation
13	Moloto, PT	Applying operations research method to measure the efficiency of SA airports	Transportation
14	Badi, O	The effect of side friction on one-way three-lane activity roads	Transportation
15	Baloyi, RM	The use of GPS tracking to examine travel patterns	Transportation
16	Du Plessis, C	Side friction and capacity reduction one one-way activity streets	Transportation
17	Hansen, E	The impact of gated communities on surrounding traffic conditions	Transportation
18	Knoetze, H	Passing behaviour of car drivers overtaking bicyclists - an exploratory analysis	Transportation
19	Kruger, A	The capacity, queue length & delay of the ticket sales & verification system in narrow bus rapid transport stations	Transportation
20	Rautenbach, GR	Congestion and travel time impacts for gated communities	Transportation
21	Serwadi, LM	Safety and usability characteristics of pedestrian bridges on high order roads	Transportation
22	Verhoek, B	The feasibility of high occupancy vehicle lanes on the Gauteng freeway network	Transportation
23	Vivier, Z	The development of a bicycle compatibility index	Transportation
24	Cole-Niven, JB	Bending resistance of composite slabs made with steel up channel with embossments for perforations	Structures
25	Du Plessis, AL	Evaluation of the effects that the method of fastening the sub-floorboards to floor-joists have on the static deflection in light steel frame floors	Structures
26	Fellows-Smith, D	Analysis of finite element models to determine the stability provided by intermediate lateral support on one flange of axially loaded, pin end supported I-section columns	Structures
27	Fourie, LP	Anchorage of light steel frame structures: stud and wall plate connections	Structures
28	Meselane, TC	Reducing deflection on lightweight steel floor	Structures
29	Van der Linde, J	Effective fastening methodology on dimpled and non-dimpled light steel frames	Structures
30	Wentzel, Z	Corrosion resistance of lightweight steel frame building anchor bolts	Structures
31	Zubane, MR	Effective anchorage of lightweight steel frame buildings	Structures
32	Brink, JC	Variance in the achievement of concrete cover on columns in Pretoria	Structures
33	Chetty, D	Uncertainties in structural engineering: The flexural strength of reinforced concrete	Structures
34	Condon, CT	Reliability of a fatigue design method	Structures
35	Horak, RB	Fatigue of steel reinforcement	Structures
36	Jacobs, M	Fatigue properties of high-yield steel reinforcing bars	Structures
37	May, HM	Distribution of basic input variables in reinforced concrete construction in Pretoria: Cover to reinforcement	Structures
38	Skinner, GM	Verification of BS EN 1992-1-1 with regards to fatigue of SA reinforcing bars	Structures

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39	Horak, CS	Punching shear reinforcement by means of shear ladders	Structures
40	Letsoalo, LC	Evaluation of alternative shear reinforcement on flat slabs	Structures
41	Bothe, S	Alternative method of using shear ladders for punching shear reinforcement in flat concrete slabs	Structures
42	Bekker, HF	Decreasing the noise transfer between floors when plywood is used as flooring	Structures
43	Hugo, FD	Buckling length of spaced timber columns	Structures
44	Onanena, DD	Effective anchoring of tensile reinforcing in reinforced brickwork beams	Structures
45	Da Silva, DL	In-situ evaluation of the liquefaction potential due to seismic loading of a gold tailings dam built at a high rate of rise	Geotechnical
46	Neethling, DJ	A study of Hillendale residue dam's settlement behaviour under own weight	Geotechnical
47	Claasen, JP	Horizontal response of a fully embedded foundation	Geotechnical
48	Olivier, J	The influence of soil suction on the undrained shear strength of Hillendale residue material	Geotechnical
49	Oosthuizen, SWB	The effect of embedment on the natural frequency of a machine foundation system	Geotechnical
50	Opperman, SN	Foundation settlements from small-strain stiffness	Geotechnical
51	Steyn, JC	Response of machine foundations with multiple degrees of freedom	Geotechnical
52	Wagner, WR	Investigation of the rate of excess pore water pressure dissipation in different tailings deposits	Geotechnical
53	Botha, HA	Optimised anchor blocks	Geotechnical
54	Coetser, D	Axial loads in soil nails during the construction of a retaining wall structure	Geotechnical
55	Greyling, JJ	The bounce behaviour of a cricket ball subjected to varying relative surface stiffness	Geotechnical
56	Hattingh, JWB	Geothermal characteristics and sizing of horizontal closed loop geothermal exchange systems for SA	Geotechnical
57	Hattingh, S	The thermal conductivity of cementitious grouts	Geotechnical
58	Jahn, S	The strength gain of coal tailings	Geotechnical
59	Poggenpoel, JJ	Factors affecting the bounce of a cricket ball on a cricket pitch during compaction	Geotechnical
60	Schoombe, JC	The determination of excess pore pressures in consolidating tailings	Geotechnical
61	Van der Merwe, GJ	Investigating a load cell, consisting of a coupling instrumented with a half wheat stone bridge that measures tensile loads in a soil nail	Geotechnical
62	Van der Smit, P	Penstock failures in tailings dams	Geotechnical
63	Van Deventer, B	Swelling clay from the Steelpoort area	Geotechnical
64	Van Eyk, FHB	The feasibility of vertical geothermal heat exchange systems in SA	Geotechnical
65	Yorke-Hart	The permeability of compacted clay liners permeated with gold mine leachate	Geotechnical
66	Agema, J	Flexural behavior of high-strength bars as reinforcement in concrete	Material
67	Bezuidenhout, AD	Alkali-Silica reaction in high strength concretes for use in roads	Material
68	Bloem, CN	Investigation of lap lengths in high strength concrete reinforced with normal and high strength steel	Material
69	Botha, E	The effects of high slag content on concrete properties	Material
70	Botha, VWA	Stress strain analysis of foamed concrete	Material
71	Breytenbach, E	Alkali-silica reaction in high strength concrete	Material
72	Brussow, J	Mechanical behaviour, elastic modulus and thermal conductivity of concrete containing waste rubber pieces	Material
73	De Waal, L	Properties of lightweight aggregate concrete	Material
74	Du Plessis, JP	The durability of concrete exposed to acid mine water	Material
75	Jooste, P	The use of 900 Mpa tensile strength steel in reinforced concrete columns	Material
76	Kriel, I	The effect of steam curing on the hardened properties of prestressed concrete	Material
77	Labuschagne, J	Effect of cement content in concrete on concrete durability	Material
78	Lewis, JH	Thermal properties of foamed concrete composite panels	Material
79	Mackellar	An investigation into the interaction between steel fibre and concrete used in ultra thin continuously reinforced concrete paving	Material
80	Markram, CR	The effect of fly-ash, cement composition and curing methods on concrete durability	Material

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81	Olivier, GJ	Evaluation of alternative sources for classified PFA in SA for use in concrete	Material
82	Potgieter, JC	The effect of soft water attack on concrete structures	Material
83	Van der Merwe, JWR	Fibre reinforced concrete for ultra thin continuously reinforced concrete pavements	Material
84	Van der Walt, JD	The efficiency of corrosion inhibitors in preventing reinforcement from rusting and structures deteriorating in the presence of acid mine water	Material
85	Van Tonder, G	The feasibility of foamed concrete as a construction material	Material
86	Barkhuizen, S	Tensile testing of polyurethane used in the application of engine mountings	Material
87	Bradnick, GCG	An investigation on the efficiency of expansion of materials when they are exposed to thermal energy	Material
88	Brooks, AW	The use of a hydraulic actuator as replacement for an electrical gate motor	Material
89	Bhoola, K	Potential applications for high density foamed concrete in pavement layers	Pavements
90	Dupper, EP	Predicting the behavioral changes in deep to shallow pavements through evaluation of the strength balance curves	Pavements
91	Etschmaier, JS	Evaluation of new cement properties on stabilization	Pavements
92	Galle, S	The modification of neat bitumen through the incorporation of carbon nanotubes	Pavements
93	Horak, ABM	Permeability at longitudinal joints on airport runways	Pavements
94	Hyson, RA	Determination of the predicted long-term performance of inerted manganese product as a road construction material	Pavements
95	Pretorius, CJ	The influence of road roughness on the transportation of fresh produce	Pavements
96	Schmidt, RW	Correlation between schmidt rebound hammer and 10 per cent fact data	Pavements
97	Serfontein, C	Evaluating the effect of different environmental and traffic conditions on the strength-balance of deep to inverted flexible pavement structures through the use of a dynamic cone penetrometer (DCP)	Pavements
98	Tlou, M	The empirical relationship between the aggregate crushing value and the schmidt hammer rebound value	Pavements
99	Tsalamandris, P	The use of accelerometers in response-type road roughness measuring systems	Pavements
100	Tshabalala, S	Potential application of foamed concrete as a trench reinstatement material	Pavements
101	Van der Merwe, M	Effects of pavement roughness on the vibration of transported cargo	Pavements
102	Van der Wath, J	A study to determine the use of low density foam concrete as a pavement material	Pavements
103	Van Dyk, JJ	Evaluation of new cement properties on stabilization	Pavements
104	Heunis, DW	The effect braking has on stress free temperature in continuously welded rails	Railways
105	Lubout, N	Assessment of the performance of resilient rail pads used in tubular modular track under SA service conditions	Railways
106	Mkhonto, PH	The ballast effect of moisture conditions on GPR results	Railways
107	Mugisha, MK	The effects of vertical loading on the forces and deflections of tubular track curves	Railways
108	Overbury, CM	A critical evaluation of the performance of different types of pads in a tubular track structure	Railways
109	Raseala, TJ	The effects of ballast conditions on the effectiveness of ballast tamping	Railways
110	Rikhotzo, MR	The effect of ballast fouling on the effectiveness of track stabilisation	Railways
111	Saunders, KM	Finite element analysis of a typical tubular track structure	Railways
112	Slabbert, MJA	The effect of rigid structures on the stress free temperature in continuously welded rails	Railways
113	Van Schoor, BM	The effect of lateral forces on the structural components of tubular modular track	Railways
114	West, CN	Investigation of the best practices of ballasting during new track construction	Railways