


The background features several dark blue paths and arrows. On the left, a path curves upwards and then downwards. In the center, a path curves upwards and then downwards. On the right, there are several horizontal arrows pointing to the right, some of which are curved. A small white icon of a car is visible on the top left path. The title text is centered in a light blue rectangular box.

ZAKON ODRŽANJA MEHANIČKE ENERGIJE

Goran Ivković, profesor fizike

$v_0 = 0 \frac{m}{s}$
 h_{max}




$E_k = \frac{m \cdot v_0^2}{2} = 0J$
 $E_p = m \cdot g \cdot h_{max}$

$E_u = E_k + E_p = m \cdot g \cdot h_{max} = 20J$

$E_u = E_k + E_p = \frac{m \cdot v^2}{2} + m \cdot g \cdot h = 20J$

v_{max}
 $h = 0m$



$E_k = \frac{m \cdot v_{max}^2}{2}$
 $E_p = m \cdot g \cdot h = 0J$

$E_u = E_k + E_p = \frac{m \cdot v_{max}^2}{2} = 20J$

$E_u = E_u$

$m \cdot g \cdot h_{max} = \frac{m \cdot v_{max}^2}{2}$

$g \cdot h_{max} = \frac{v_{max}^2}{2}$

$h_{max} = \frac{v_{max}^2}{2 \cdot g}$

$2 \cdot g \cdot h_{max} = v_{max}^2$

$v_{max}^2 = 2 \cdot g \cdot h_{max}$

Kada na telo ne deluju spoljašnje sile ukupna mehanička energija je konstantna (stalna, ista).