



**MODELS AND METHODS FOR
INCREASING THE EFFICIENCY OF
INNOVATIVE RESEARCH**

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Tagungsbände werden für Wissenschaftler und Lehrende an Hochschulen empfohlen. Sie können in der Ausbildung eingesetzt werden, einschließlich der Lehre im Aufbaustudium, der Vorbereitung auf den Erwerb von Bachelor-und Master-Abschlüssen. Die Begutachtung aller Artikel wurde von Experten durchgeführt, die Materialien unterliegen dem Copyright der Autoren. Für Inhalt, Prüfungsergebnisse und Fehler sind die Autoren verantwortlich.



AVTOMAGISTRAL YO‘LDA HARAKATLANAYOTGAN AVTOMOBILLARNING HARAKATI DAVOMIDA XOSIL QILGAN SHAMOL POTENSIALINI ANIQLASH

G‘.B. Mustafoev

¹ “Toshkent irrigatsiya va qishloq xo‘jaligini mexanizatsiyalashtirish muhandislar instituti” MTU.

D.I. Komilov

² “Toshkent irrigatsiya va qishloq xo‘jaligini mexanizatsiyalashtirish muhandislar instituti” MTU.

Anotatsiya: Ushbu maqolada magistral yo‘llarda harakatlanayotgan avtomobillar harakati davomida xosil bo‘ladigan shamoldan elekt energiya olishni yoritib berilgan. Olingan natijalar shuni ko‘rsatdiki harakatlanayotgan avtomobildan 1metr yonga va 1metr tepadagi shamol patinsiali eng yuqori ko‘rsatgichga ega ekan.

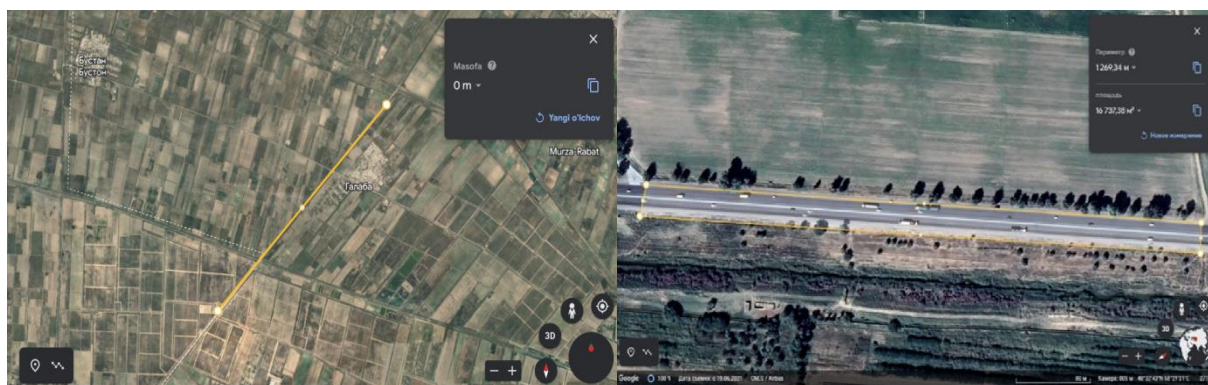
Kirish. Loyihaning asosiy maqsadi avtomobil yo‘llarida xosil bo‘ladigan shamol energiyasini elektr energiyasiga aylantiradigan vertikal o‘qli shamol turbinasini loyihalashdir.

Bu loyiha xali ommalashmagan loyihalardan .O ‘rtacha tezlikni aniqlash uchun shamol shakllari bo'yicha keng ko‘lamli tadqiqotlar talab etiladi.

Magistral yo‘llarda avtomobillar qatnovi ko‘pligi va tezlik chegarasi yuqori ekanligi katta potentsialli shamol oqimini yuzaga kelishiga sharoit yaratadi.

Ma‘lumotlar va uslublar

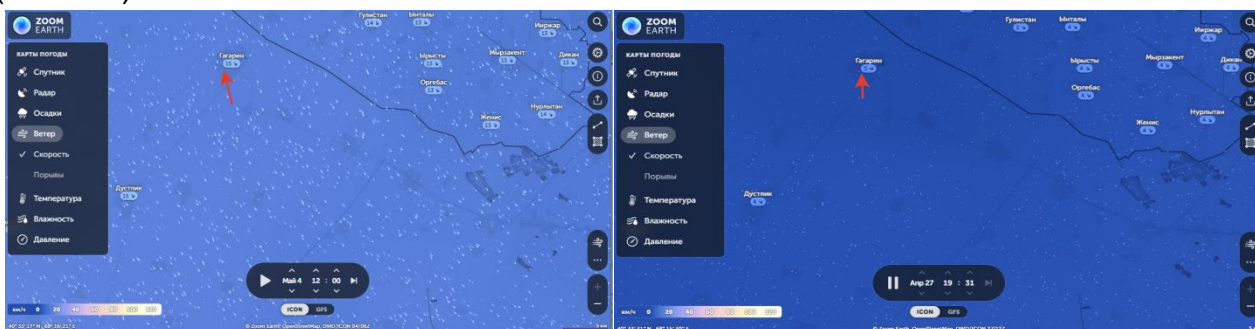
Eng avvalo tadqiqot o‘tkaziladigan hududni tanlab olamiz (1-rasm).



1-rasm M 39 ("H96C+FG Fergana" dan 4W2Q+4MG Jizzax gacha") moshinalar qatnov yo‘li[1].



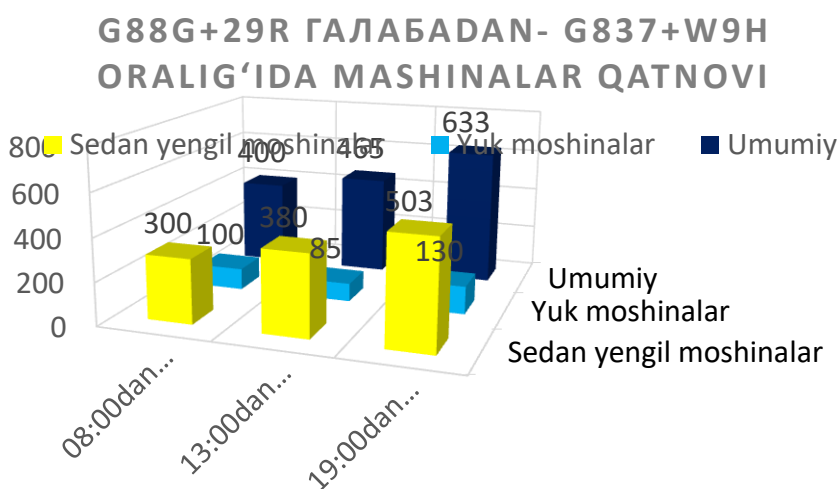
Biz tanlab olgan M 39 magistral yo'lining tabiiy shamol oqimini ko'rib chiqiladi (2- rasm).



2-rasm weather.com[2] saytidan olingan shamol tezligining tanlangan hududdagi ko'inishi

Tanlangan hududda tanlangan shamol tezligi o'racha 4-7 m/s ni ko'rsatmoqda.

Tanlangan hududda avtomobil oqimi patinsialini ushbu 3-rasm diagramma orqali tanishish mumkin.

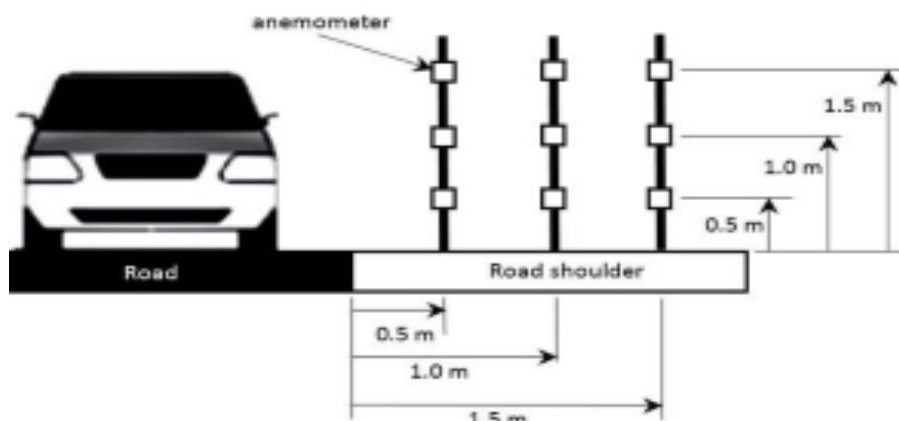


3-rasm

M 39 magistral yo'lining biz tanlab olgan kesimida avtomobillar harakat tezligi chegarasi 110 km/soat etib belgilangan[1].

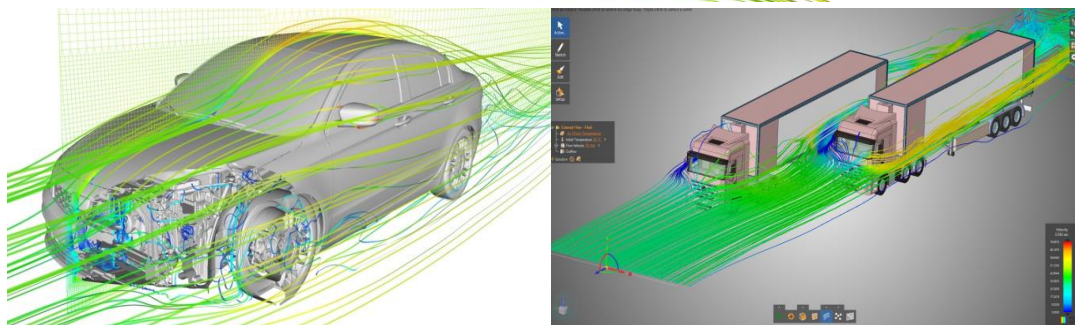
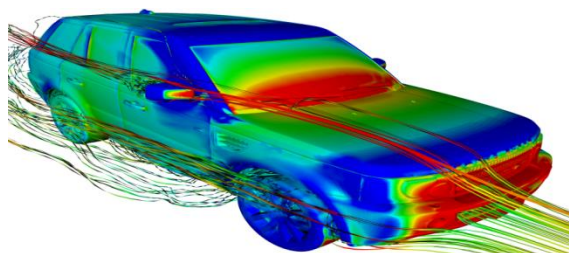
M 39 magistral yo'lida harakatlanayotgan avtomobillarning harakatidan xosil bo'layotgan shamol tezligini va shu bilan birga qaysi sathda shamol potentsiali ko'pligini xam anemometr qurilmasi orqali aniqlashtiriladi (4-rasm). Sedan, krasover va yuk tashuvchi avtomobillarning shamol oqimini kesishi 5-rasmda tasvirlangan.





Yo'lga ulashgan anemometrlarning holatining eskizi.

4- rasm



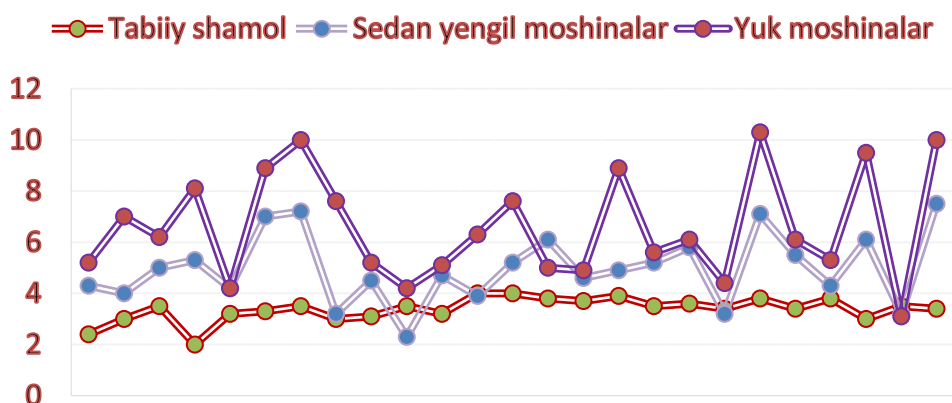
5-rasm. Sedan, krasover va yuk tashuvchi avtomobillarning shamol oqimini kesishi[3].

Olingan natijalar va ularning taxlili

Olingan natijalar shuni ko'rsatdiki harakatlanayotgan avtomobildan 1m yonga va 1m tepadagi shamol potentsiali eng yuqori ko'rsatgichga ega ekan.

Anemometr qurilmasidan quyidagi natijalar olindi (6-rasm):

SHAMOL POTENSIALI



6-rasm. SHamol potentsiali

Xulosa.

Keyingi yarim asr mobaynida sayyoramizda ekologik xavf-xatarlar miqdori ortib borayotgani mutaxassis-olimlarni jiddiy tashvishga solmoqda. Iqtisodiy taraqqiyot maqsadlarida energiyadan foydalanishning me'yorida ortib ketishi muammoning asosiy sababi sifatida e'tirof etilmoqda. Yoqilg'ining organik turlaridan foydalanuvchi elektr va issiqlik stansiyalari hamda ichki yonuv dvigatellaridan chiqayotgan zararli gazlar tufayli atrof-muhit ifloslanmoqda. Yillar davomida atmosferaga zararli moddalar qoldiqlarini katta miqdorda chiqarib yuborilishi natijasida ozon qatlamiga putur yetgan, Yerdə esa global energiya tanqisligi vujudga kelmoqda. Bu tanqislikni bartaraf etishda shamol energiyasidan foydalanish eng maqbul yo'llardan biri sanaladi.

FOYDALANILGAN ADABIYOTLAR:

1. Elektron resurs: <https://www.google.com/>
2. Elektron resurs: <https://www.weather.com>
3. Elektron resurs: <https://www.ansys.com>

