

International Multidisciplinary
Research Journal

Golden Research
Thoughts

Chief Editor
Dr.Tukaram Narayan Shinde

Publisher
Mrs.Laxmi Ashok Yakkaldevi

Associate Editor
Dr.Rajani Dalvi

Honorary
Mr.Ashok Yakkaldevi

Welcome to GRT

RNI MAHMUL/2011/38595

ISSN No.2231-5063

Golden Research Thoughts Journal is a multidisciplinary research journal, published monthly in English, Hindi & Marathi Language. All research papers submitted to the journal will be double - blind peer reviewed referred by members of the editorial board. Readers will include investigator in universities, research institutes government and industry with research interest in the general subjects.

International Advisory Board

Flávio de São Pedro Filho Federal University of Rondonia, Brazil	Mohammad Hailat Dept. of Mathematical Sciences, University of South Carolina Aiken	Hasan Baktir English Language and Literature Department, Kayseri
Kamani Perera Regional Center For Strategic Studies, Sri Lanka	Abdullah Sabbagh Engineering Studies, Sydney	Ghayoor Abbas Chotana Dept of Chemistry, Lahore University of Management Sciences[PK]
Janaki Sinnasamy Librarian, University of Malaya	Ecaterina Patrascu Spiru Haret University, Bucharest	Anna Maria Constantinovici AL. I. Cuza University, Romania
Romona Mihaila Spiru Haret University, Romania	Loredana Bosca Spiru Haret University, Romania	Ilie Pinteau, Spiru Haret University, Romania
Delia Serbescu Spiru Haret University, Bucharest, Romania	Fabricio Moraes de Almeida Federal University of Rondonia, Brazil	Xiaohua Yang PhD, USA
Anurag Misra DBS College, Kanpur	George - Calin SERITAN Faculty of Philosophy and Socio-Political Sciences Al. I. Cuza University, IasiMore
Titus PopPhD, Partium Christian University, Oradea, Romania		

Editorial Board

Pratap Vyamktrao Naikwade ASP College Devrukh, Ratnagiri, MS India	Iresh Swami Ex - VC. Solapur University, Solapur	Rajendra Shendge Director, B.C.U.D. Solapur University, Solapur
R. R. Patil Head Geology Department Solapur University, Solapur	N.S. Dhaygude Ex. Prin. Dayanand College, Solapur	R. R. Yallickar Director Management Institute, Solapur
Rama Bhosale Prin. and Jt. Director Higher Education, Panvel	Narendra Kadu Jt. Director Higher Education, Pune	Umesh Rajderkar Head Humanities & Social Science YCMOU, Nashik
Salve R. N. Department of Sociology, Shivaji University, Kolhapur	K. M. Bhandarkar Praful Patel College of Education, Gondia	S. R. Pandya Head Education Dept. Mumbai University, Mumbai
Govind P. Shinde Bharati Vidyapeeth School of Distance Education Center, Navi Mumbai	G. P. Patankar S. D. M. Degree College, Honavar, Karnataka	Alka Darshan Shrivastava Shaskiya Snatkottar Mahavidyalaya, Dhar
Chakane Sanjay Dnyaneshwar Arts, Science & Commerce College, Indapur, Pune	Maj. S. Bakhtiar Choudhary Director, Hyderabad AP India.	Rahul Shriram Sudke Devi Ahilya Vishwavidyalaya, Indore
Awadhesh Kumar Shirotriya Secretary, Play India Play, Meerut (U.P.)	S. Parvathi Devi Ph.D.-University of Allahabad	S. KANNAN Annamalai University, TN
	Sonal Singh, Vikram University, Ujjain	Satish Kumar Kalhotra Maulana Azad National Urdu University

Address:- Ashok Yakkaldevi 258/34, Raviwar Peth, Solapur - 413 005 Maharashtra, India
Cell : 9595 359 435, Ph No: 02172372010 Email: ayisrj@yahoo.in Website: www.aygrt.isrj.org

βtyl k{kj rnk % dkGkph xj t p



dY; k.k vkJq o jGs
¼ gk-i-k] jkT; "kkL=½ efgyk dYkk egfo | ky;] chM

Short Profile

Kalyan Ashru Warale is working as an Assistant Professor at Womwns College, Bheed. He has completed M.A. He has professional experience of 21 years.



i Lrkouk %&

^i k.kh Eg.kts thou* ekuoh thoukl kBh T; k ey/Hkur xj tk vkgR] R; kr ik.; kpk i ke[; kus l ekosk vkgR i kphu _f"keuphuuh ik.; kps egRo tk.kuu ik.; kyk i q; uh; ekuys i Fohoj HkMkxki \$kk i kpi V ik.kh vf/kd vkgR vki.kkl HkMkxkojhy HkMkxk [kkyhy o i kol kOnkjs v'kk fofo/k ekxkzuh ik.kh mi yC/k gkA 'kdrs vl s vly s rjh i kol kP; k ik.; koj p brj ik.; kph i krGh voyzau vl rs vki yh ykdl q; k nj o"kh2 VDD; kusok<rs vki Y; k nSufnu xj tk Hkxso.; ki kBh 150 fyVj ik.kh ykxrs vki Y; kp ns kkr vudl cka'kokauk fnol kr 3 rs 40 fyVj ik.khl qnk feGr ukgh- gh fol arh y{kr ?krk ik.; kph

mi yC/kh ok<fo.ksxj tpsvkgR; kpcj ksj mi yC/k ik.; kpk dkVdl jhusoki j dj.ksgsl qnk vko'; d vkgR 100 dk/hph e; khk vkyk/tysh ykdl q; k vl yS; k ns kkr vkf.k R; krY; k [kMdkP; k egkj"Vkr ik.; kP; k iz ukp Lo: i fuf'prp oxGsvkgR egkj k"Vkr dkd.kl kj [; k Hkxkr Hkj i j i kA l gkrksi .k rksrl kp okgu l eekyk feGrks brj Hkxkr i kA l cstkj o'kkpk] u | kph l q; k deh] R; krgh Okj l a i k.kh ukgh- T; k ; kst uk >KY; kr R; krugh i j d sfl pu >kysys ukgh- ik.; kp okVi] i hdi /nrh] i k.kh oki j kph i /nrh HkMkxk [kkyP; k ik.; koj fu; kst u gks ksvko'; d vkgR gs tj >kysukgh rj vud l el; k vki Y; k l ekj vl rhy- vud o"kh vkEgh tfeurhy ik.kh mi l r xysk vkf.k , o<Okk ekBOkk i ek.kkoj ik.; kpk mi l k dsk dh] ik.; kph i krGh 250 QkP; k [kkyh xsyh- ik.; kph i krGh [kkyh xsyh Eg.kuu vkt ekBOkk i ek.kkoj clsvj osy e/kuugh vkEgh ik.kh mi l r cl yk rj dkgh o"kkzr vkt fi .; ki kBh ts ik.kh feGr rs l qnk feG.kkj ukgh- R; keGs ns kkrhy ik.khek=kauk ft or jkg.ks vo?kM tk.kkj vkgR [kMOkkrhy 'krh /kkD; kr ; s kkj vkgR ; kph >G 'kgj krhy ek.kl kauk qnk l gu dj koh ykx.kkj vkgR ; ki kl uu nij jkgk; psvl sy rj tyl k{kj rnk vkf.k ik.kh fu; kst u ; kckch vr; ar egRokP; k vkgR- i Lrk vH; kl fo"k; kr tyl k{kj rph vko'; drk] ik.; kph l el; k] i Fohojhy typØ vkf.k tyl a Ykh] ik.; kph mi yC/kh vkf.k xj t] ik.; ki kBh fu; kst u vkf.k fu"d"kh l kax.; kpk iz Ru dsk vkgR

tyl k{kj rnk vko' ; drk %&

vkt tuek.kl ke/; s tyl k{kj rnk vr; ar vko'; drk vkgR nqdkG o ik.kh Vpkbz gs ful xZufeZ ul uu ekuofufeZr vkgR- ik.kh oki j kP; k pphP; k i /nrh] tyl d/kz kph v{ke; gGI kM] i ; kbj .kkpk cnj dkj uk'k] ve; kh

uŋ; kpk g0; kl ; k o brj l ektækg h i ðRrhruop gh Vp{kbl tlekyk ; rs xsyh 20 o"lã 20 yk [kka \$kk vf/kd —"khi ä vQkV oskus HkkHkZ tykpk cQke mil k djr vkg- rj cl; kpi ðh i t0; eku vl yŋ; k fBdk. kh i kol kps i k. kh dks kR; kgh vMFkG; kokru okru tkÅ ns; kpk cnj dkj i .kk nk [kou vkegh ful xkph vueky l ä Rrh [kk0; k i k. ; kdMs tkÅ nr vkg- okLrfod i kol kP; k 2 VDdsrs3 VDds i k. ; kr fi . ; kP; k o ?kj xrh oki j kP; k xj tk i t; k gkrkr rj 200 rs250 fe- fe- i k. ; koj fi . ; kps i k. kh o 'krhyk i k. kh ; kP; k xj tk i wZ gkrkr- gs uxj ftYákrhy fgojs cktkj] i kj uŋP; k i Goŋ j kGx. kfl /nh ; k xkokuh fl /n d: u nk [kfoys vkg; ; k nkŋgh xkokr 200 fe-fe- i kÅ l i Mrks i . k i k. kyk/ fodkl kps dke >kY; keGsvkf. k xkod0; kauh LoPNsus l kefgd fu. kZ k0nkj sfucZk ?kkrY; keGsi k. ; kps; Fkk; kK; 0; oLFkki u gksÅ 'kdrs i hd i /nrhpk eŋ kgh egRokpk vkg; dj Å l kyk 1 rs11@2dk/h fyVj i k. kh ykxrs, o<0kk i k. ; kr 1000 ykd kph o"lã Hkj kph i k. ; kph xjt Hkkxw 'kdrŋ Eg. kau i hd i /nrhps ykd fgrkHke [k fu; eu dsys i kfgts i . k egkj k'VRP; k 'kkl ukus l Rrk/kkj h i {kP; k i R; d vlenkj xf. kd , dk l k [kj dkj [kk0; kyk i jokuk fnY; koj fdok okti s h l j dkj us vki Y; k jkt dh; LokFkZ kBh vkf. k l kekT; ok | kP; k [kŋ; k vFk0; oLFkph veyctko. kh dj . ; kdjrk 200 u0; k dkj [kk0; kps i jokus fnY; koj ml ykxom {ks= ok<. kŋj ukgh rj dk; gks kŋj \ vo"lã k gk ful xp0kpk vfoHkkT; Hkkx vkg i . k i k. ; kph l kekT d ekydh i k. ; kP; k l e0; k; okVi kph l ektfgr i b. k Hkkfedk vkf. k njn'kiz ty0; oLFkki u uhrhpk voyæ dŋy rj vo"lã kps : i kar nŋdkGkr gks; kl vml j ?kkyrk ; bŋy-

tyl k{kjrk dk

1½ kol kps i k. kh i Mrsrl p rsl ekyk tkÅu feGrsrstfeuhe/; sej foY; kl Hkntyl kBk ok<y- 2½ k. ; kpk ; kK; i ek. kkr oki j gkr ukgh vko' ; drsi \$kk tkLr i k. kh oki jystkrs; kl kBh i f' k{k. kph xjt vkg- 3½ krhyk i k. kh ns ; kl kBh i /nrh cnyk; yk goh- dWkly i /nrhusi k. kh fnY; keG40 rs60 VDds i k. kh fouk' k i kors 4½ vS kfxdj . kps i k. kh unhe/; sl kM/Y; keGsunhpsi wZ i k. kh nŋ'kr gkr; kru vud l eL; k fuekZ k gkrkr- 5½ vS kfxdj . kkl kBh oki jY; k tk. kK0; k i k. ; kpk i ŋjZki j dŋ; kl vS kfxdj . kkl kBh ykx. kK0; k 75 VDds i k. ; kph cpr gkbŋy- rl p ?kj xrh oki j kl kBhpsi k. kh i ŋgk oki jysxŋ; kl QGŋ Hkkthi kyk yko. ks'kD; gkbŋy- 6½ 'kgjkrhy l kM i k. kh , d= d: u R; koj i f0; k d: u R; kpk mi ; ksx m | ksx' krh] dkj [kkusfdok tfeuhrhy i k. ; kph i krGh ok<fo. ; kl kBh djrk ; bŋy- ojhy dkj . kkl kBh tyl k{kj rph vko' ; drk vkg-

i k. kh l eL; k %

21 0; k 'krdek/; sfodkl kP; k i f0; r i k. ; kph mi yC/krk gk l okZ ekBk ?kVd Bj . kŋj vkg; vki . k 210; k 'krd kP; k mæj B; koj vkgkr vS kfxd] rŋi=d] oŋ dh; oRrh bR; knh l oZ {ks=kr frl jstx l ŋnk fodkl kP; k i f0; r xfreku vkg; ; k xfreku fodkl kP; k vkf. k i xrhP; k i k' oHkæoj i k. ; kPksLo: i y {kkr ?krys vkf. k oGhp mi k; ; kst uk dŋy rj p 21os'krd l okZ kBh l ŋkps vkf. k l e/nhps tkbŋy] dkj . k i k. kh gh e; kŋr uŋ fxd l ä Ykh vkg; txkr mi yC/k vl yŋ; k i k. ; kph foHkkx. kh gh uŋ fxd f j R; k nŋbkus vR; r fo"kersus >kyh vkg; i k. kh gp l "Vhpŋ typj kps mxelFkku vkg l ekrnuop thol "Vhp fufeŋh >kyh- l "Vhr 71 VDds i k. kh vkf. k 29 VDds Hkkkx ; kauh cuysy vkg; i Fohoj vl yŋ; k i k. ; ki ðh 97-2 VDds [kŋj s i k. kh vkg; 2 VDds cQkP; k : i kus mYkj /kpkoj l kByys vkg; mj yys i k. kh 0-62 VDds Hknty 0-008 VDds l j k0js 0-01 VDds u | kru i gko; kl feGr; ; ko: u ekuoh 0; ki kj kl kBh i k. kh fdrh i ek. kkr vkg] gsy {kkr ; bŋy-

i Fohojhy typ0 vkf. k tyl ä Rrh %

vki . kkl i k. kh rhu i dŋj s mi yC/k gksÅ 'kdrs Hkkkxk] Hkkkxk [kkyhy vkf. k i kol k0nkj s i k. kh mi yC/k gksÅ 'kdrs l ekyojhy i k. ; kph okQ th <xkP; k : i kus vkdk' kkr fnl rs i k. ; kP; k ck" i Hkkoukr r; kj >kyŋ; k ; k <xkauk gok ykxrkp <x i k. ; kP; k : i kuscjl rkr i M. kK0; k i kol kusdkgh i k. kh Hkq "Bk [kkyP; k fofokrs æk. ks tfeuhr deh o tkLr i ek. kkoj ej rs R; kykp Hknty Eg. krkr- i kol kps i k. kh Mæj ko: u okgrŋ l ei krGhr j kg. kŋj gk i k. ; kpk xqk/keZ vkg; R; kuŋ kj Mæj ko: u okgr ; s kŋj s i k. kh mrkj ko: u ygku-ygku ukŋ] vks; ; kru okgrsvl sgs i k. kh [kŋy xV Hkkxkr j kgr; ; kykp vki . k ryko@rGsEg. krks ygku-ygku ukys, d= ; Å u r; kj >kys sunhpsi k. kh vMfoY; kuarj R; kl /kj . k vl sEg. krkr- ; k'kok; mj yys i k. kh okru l ekyk feGrsnol Hkj kP; k rki ekusfo' kkr% Qc p kj h rsesefgl; kP; k dMd mlGkeG fofgjh] rGŋ ryko] l eæ >kMkP; k i kukrhy i k. kh bR; knhps ck" i Hkkou gkr; ; k okQph ?kurk deh vl rs Eg. kau okrkj . kkr rks l okZ mp fBdk. kh , df=r gkrso ; k , df=r gks ; kP; k f0; sykp <x vl sEg. krkr- i ŋgk ; k <xkl FkM gok ykxyh dh i k. ; kpk Fæ curks vl s vl ŋ; Fæ , d= teys dh ts tM gksÅu xq Rokd"lã kkus, d= [kkyh ; rkr ; kykp vki . k i kÅ l

Eg. krks ; k l a wki kol kP; k oxoxG; k ek/; ekruu ; s kku; k i dkl kyk ^i k. ; kpsp0* Eg. krkr-
 txkrhy oxoxG; k : i krhy i k. ; kps oxhclj .k i qhyi ek. ks l kxjh i k. kh 1370 vct fdyks ?ku ehVj] o"kkP; k
 : i krhy i k. kh 24 vct fdyks?kuehVj] Hkq "Bkojhy i k. kh 0-83 vct fdyks?kuehVj unh ukyl ; krhy i k. kh 0-0012 vct
 fdyks?kuehVj brdsvkgs
 txkrhy fofo/k Hkxkr fofo/k oGh i kAl i Mrkj nf{k. k vefj drhy is P; k vWkdkek i ns kkr] efdl dkrhy l kulkj
 okGoa/kr vkf. k vktVh; kP; k okGoa/h i ns kkr i M. kku; k i tD; ekukph okf"kd l jkl jh 120 rs 130 fe-fe- i {kk tkLr ukgh]
 ek= gokbzcy/koj fdok Hkkr rkrhy pjki qth ; k fBdk. kh 12000 feyh i kAl i Mrks fpyhe/; sl rr 5 rs 10 o"kd i kAl i Mr
 ukgh-

i k. ; kph mi yC/kh vkf. k vko' ; drk %&

txkr njo"khz l k/kkj .ki .ks 47000 ?ku fdykuehVj brdh tyl a Rrh mi yC/k gkrs Hkkr rkr 1864 ?kufdykuehVj
 tyl a Rrh i klr gkrs txkP; k , dWk tyl a Rrh i kH Hkkr rkr 4 VDdstyl a Rrh vkgs njo"khz txkr 3247 ?kufdykuehVj i k. kh
 oki jys tkr R; ki kH 69 VDds i k. kh 'krhyk] 23 VDds i k. kh gs vks] kfxdhdj .kkl kBh rj 8 VDds i k. kh ?kj xqth oki jkl kBh
 oki jys tkr ns kks kke/; s i k. kh oki jkP; k ; k i ek. kkoj [khp Qjd vk<Guu ; sr v l s ckyys tkr dh] nj Mkbz 20]000
 ?kuehVj i k. kh thou; ki kj pkyo. ; kl kBh feGkysrj i k. kh gsepyd vkgsvl sl etkos 10]000 ?kuehVj , o<s i k. kh feGkys
 rj i k. ; kph mi yC/kh cl; ki kH l etkoh- 5000 ?ku ehVj i k. kh feGkysrj i k. ; kph mi yC/kh cjh vkgsvl sl etkos

cl; ki kH thou tx. ; kl kBh i k. ; kP; k nj Mkbz xjtP; k v/; {k ^Qksku i kdZ ; k ifl /n LohfM'k ty 'kkl=Kkus dyk-
 i k. kh VpkbP; k ckrhr R; kus fodfl r dyyk l pdkd ekU; dj. ; kr ; rks ; k l pdkdki ek. ks 100 rs 1700 i k. kh nj Mkbz
 mi yC/k vl y- rj rh ifj l Fkrh Vpkbz l n' ; l etkoh- vkf. k gtj ?kuehVj i V deh vl y rj rh ifj l Fkrh nh?kd kykhu
 Vpkbz l etkoh-

txkfrd i krGhoj l jkl jh 8500 ?kuehVj nj Mkbz njo"khz i k. kh mi yC/k vkgs Hkkr rke/; s gs i ek. k nj Mkbz njo"khz
 2200 ?kuehVj vkgs phue/; s 2420 ?kuehVj] vefj de/; s 9900 ?kuehVj vkf. k l kfog; r jf'k; ke/; s 1900 ?kuehVj
 brdsvkgs Eg. kts vkrj jk"Vh; l kVukP; k Eg. k. ; ki ek. ks txkr dkBgh Hkkr i j i ek. kkr nj Mkbz njo"khz l /; k i k. kh mi yC/k ukgh
 vkf. k gsojpoj deh gkr tk. k kj vkgs

Hkkr rkr txkrhy i k. ; kP; k 4 VDds i k. kh mi yC/k gkrs Eg. kts 1869 ?kuehVj i k. kh njo"khz mi yC/k gkrs ; k mi yC/k
 i k. ; ki kH njo"khz 690 ?kuehVj i k. kh u | k ; kruu rj 450 ?kuehVj i k. kh Hkkr Hkkr rru feGrS

[kAl mi [kAlkr i M. k kj k l jkl jh i kAl		
[kAl	&	i kAl fe-fe-
nf{k. k vefj dk	&	1596%
v\kfvdk	&	1150%
mRrj vefj dk	&	808%
; j kj	&	769%
vkfYdk	&	725%
vkf'k; k	&	630%

fofo/k ns kkr mi yC/k i k. kh i ek. k		
ct>hy	&	13-4%
j f'k; k	&	11-2%
phu	&	6-7%
dWuMk	&	5-8%
Hkkr r	&	4-9%
brj moj r ns k	&	58-0%

mRRkj Hkkr rkrnu okg. kku; k u | kae/; s cEgi e-k] xak ; k i ed[k u | k vkgs- u | kruu okg. kku; k i k. ; ki kH 29% i k. kh
 cEgi e-k 28% i k. kh xaxru okgrs R; keGs cEgi e-P; k [kkd; kruu jkg. kku; k ykd l a s yk 18417 ?kuehVj i k. kh mi yC/k gksA
 'kdrs ek= nf{k. kr okg. kku; k u | ki kl u tere 30% i k. kh mi yC/k gkrs R; keGs rkehGukMdMuu okg. kku; k dkoj hl kj [; k
 unhP; k [kkd; kr tere 360 ?kuehVj i k. kh mi yC/k gkrs

egkj k"Vkrp {ks=QG 3 yk [k 7 gtj pkj l fdykuehVj vkgs Eg. kts Hkkr rkr; k , dWk Hkkskfyd {ks=kP; k 9-4% , o<s
 vkgs i tD; ekukP; k vk/kj j kT; kps pkj Hkkr i Mrkr- if' pesyk l epefdukj i VVh vl ysyk dkd. kpk i ns k tFks i tD; eku
 l jkl jh 3000 fe-eh- vkgs dkd. kyxr l akæP; k j k kauh nHkkyxyk if'pe egkj k"Vkr ; Fks l jkl jh 600 fe-fe- rj

if'pe egjk"Vtyk ykxuu ejkBokMk vkgš rFks l jkl jh 900 fe-fe- ikÄI i Mrks jkT; kP; k inöyk fonHkkz l jkl jh 1200 fe-fe- ikÄI gkršs ; kl okpk fg'kkc dyk rj egjk"Vtr njo"khz 380 vCt ?kuehVj ikÄI i Mrks R; ki šdh 1]16]000 ?kuehVj i k.kh u | knu okgu tkrš
foHkkxkoj njMkbZ ik. ; kpk fopkj dyk rj vl sy{kkk ; bÿ dh] l /; k if'pe egjk"Vtr 840] ejkBokM; kl kBh 2520] fonHkkz kBh 5496] rj dkd. k foHkkxkr jkg. kkÜ; k ykdI ð; syk njMkbZ ik. ; kph mi yC/kh 19000 ?kuehVj vkgš ek= fnol fnol egjk"Vtr ekB; k i æk. kkoj i k.kh Vpkbz'tk.kor vkgš 1962 l kyh egjk"Vtrhy 80 rkyptsndkdGh gkrš 1998&2000 l kyh ndkdGh rkyð; kph l ð; k 94 i ; š gkrš- 2000&01 l kyh 115 i ; š 2003&04 e/; srh ; ki škk tkLr vkgš

i k. ; kl kBh fu; kst u %

i k.kh izu vkt fuokz khp; k VII; koj ; Åu i kgpyk vkgš HkkHkkz'hy i k. ; kph i krGh ^MkÅu Vvnh , UM* i škkgh [kkyh tkr vkgš T; k dkgh ; kst uk l q vkgš- R; k i wkz {kerus l q ukghr fi. ; kps 'kqn i k.khp dk;] bFku i eP; k dkGkr nñ'kr i k. ; kl kBhgh ek.kl s, dexdkp; k thokoj mBrhy v'kh voLFkk vkgš
i k. ; kP; k 0; oLFkki ukps egRo ykdI kP; k vkf.k ykdI rfu/khP; k tki ; š y{kkk ; r ukgh rki ; š e; kžnr vl ysh tyl ä Rrh okpfo.ks eñ dy gkÅu cl sy- R; kl kBh LFkkfud i krGhoj i k. ; kps egRo R; kps fu; kst u vkf.k R; kps 0; oLFkki u ; kfo"k; h ykdI k; ; stutkxrh dj k; yk goh rh >kyh ukgh rj vk; kxkoj l jdkj rOždj. ; kr ; s kkj k [kpZ0; FkZ tkbÿ- i M. kkÜ; k i k. ; kpk FkC u FkC vMokok ykxy- Bi k.kh vMok] i k.kh ftjokP i R; d i k.kykš/ {ks=kr ukykcaMx] i k>j ryko dj .k fodkl] ouhdj .k] tehu l i kvhdj .k Hkkexr cãkkj sv'kk dkekoj Hkj | kok ykxy-

mi k; %

1½ ykdI ð; oj vkgk %

mi yC/k i k. ; knuop fodkl kpk ox dk; e Bok; pk vl sy rj ykdI ð; syk l ož Fke vkgk ?kky. ; kps mi k; vœykr vk.kkos ykxrh- dkj .k fodkl kpk mi Hkkx ykdI kauh ?; ko; kpk vl rks ok<R; k ykdI [a ph ok<rh xjt] i k.kh Vpkbz f'kok; nd j sdkggh ; k txkyk nÅ 'kd.kk ukgh- ykdI ð; syk vkgk cl Y; kl gsi k.kh okpork ; bÿ-

2½ tkLr i k.kh ?ks kkÜ; k fi dkøj fucžk %

vf/kd i k.kh ykx.kkjs i hd mnk- ÄI] ykC] rampk dki [] mUgkGh Hkkžk] Hkkz] dGh ; kP; koj mri knukoj fucžk ?kkykor- fdeku T; k xkokr i k.kh Vpkbz'gk /kkcdk mnHkwo'kdsy v'kk xkoke/; sgh fi ds?ks ; kps Vkgš vkf.k deh i k.kh ykx.kkjs vkf.k dehr deh fnol kr ; s kkÜ; k fi dkaik i k/kkÜ; vkf.k i kRl gu | kos

3½ fi . ; kP; k i k. ; k0; frfj Dr oki jkl kBh cksvj ošl psi k.kh oki jkoj canh vk.kkoh %

i š ty L=kr kP; k l j {k.kkI kBh Hknty mi 'kkøj fu; æ.k dj.kkjk dk; nk ^egjk"Vtr Hknty %i š ty fu; æ.k grñ d k; nk 1993 vkgš i .k R; kph 'kkL=h; i /nrhus i k.kykš/ {ks=kuq kj vœyctko.kh u >ky; keGš ve; kž mi l k pkyw j kgu Hkq'kykoj vk/kfj r i š ty 0; oLFkP; k v0; ogk; žcdMs ykdI >plw ykxy vkgš i k.kykš/ {ks=k [kypš l ož Hknty gh , d= l kByyh v'kh l okph l kel'fd l ä Rrh vkgš v'kk fopkj knu R; k l kenf; d l ä RrhP; k okVi kpsfu; eu cl oys tk.ks t: j hps vkgš T; kP; k tfeuh [kkyh ts i k.kh rs dōG R; kps vkgš vl k tks pphpk vFžfo | eku dk; | kP; k i fj Hkk'kr ykoyk tkr vkgš R; kr i k. ; kPk l /; kP; k nj koLFkps eG vkgš

4½ fBcd fl pu] r(kkj fl pukpk oki j djkok %

fi dkP; k i R; d eGkP; k Hkkxkr j ki kyk fdok >kmkyk jst ykxy rō<p i k.kh R; k oGkr fdok FkkM; kQkj Qj dkusfdok l rr /kkj l km.ks Eg.kts fBcd fl pu& gh fi dkl i k.kh ns ; kph , d vk/kfud vkf.k dkVd l jhus i k.kh oki j. ; kph i /nr vkgš ; k i /nrheGš i j jkx r i k.kh ns ; kP; k rgyur 50 rs80 VDD; ki ; š i k. ; kph cpr gkš 'kdrs ; keGš 5 rs25 VDdsmri Uukr ok< gkrš

5½ tyfnu l ktj sdjkos%

tyfnu l ktj sdj; kefs tyl k{kjrk ok<y vfk.k i.k.; kP; k dkVdkj okijkl aakh tul keku; krgh tkxrh fuekz k gkbly-

6½ o{kkrkM Fkkakoh %

o{kkrkM Fkkakoh Eg. kuu baakukP; k ykdMkyk i; kZ fnyk i kfgts; k l kBh fu/kj pyh] ck; kxW] l ksykj okWj fgVj] xW Ok; j vknh l a =. kkp k i pkj >kyk i kfgts R; kP; k okijkl aakhpsi f'k{k.k fnysxsys i kfgts; kf'kok; i s/ky xW ekB; k i ek. kkr baaku Eg. kuu nldkGh Hkkxkr oki j.; kr mi yC/k dYksi kfgts-

7½ i.k.; kpk i wkzokij %

vks] kfxdj. kke/; soki jY; k tk. kku; k i.k.; kpsfj l k; fyak d: u i tlgk rsik. kh oki jysxsysrj dkj [kkU; koj ykx. kks75 VDds i.k. kh i quubki jkP; k ekxkZus mi yC/k gksA 'kdsy- ?kj xqrh oki jkrhy i.k.; kph cpr vud ekxkZus deh djrk; bly-vakGhl kBh] di Ms/kq; k l kBh vfk. k brj l kMi k. kh ok; k u tkA nsk rsHkkthi kyk mRi knukl kBh oki jrk; A 'kdrs

8½ i.k.; kpsi ujZkj.k %

?kj kP; k Nrkojhy i.k. kh Hk: u rsfQVj d: u l kMrk; rs rl p tfeuhjhy i.k. kh fQVj d: u fofgh e/; s l kMrk; rs gsej ysys i.k. kh vki Y; kyk i tlgk oki jrk; rs o'kZyk fi.; k l kBh vfk. k ?kj xqrh oki jkl kBh ek. kl h 15 ?kuehVj i.k. kh ykxrs Nrkojhy i.k. kh l kBfo.; k l i.k.; kP; k ?kj xqrh oki jkpk iz u cl; kp i ek. kkr l w'kdrks

9½ i.k. kh vkMok i.k. kh ftjok %

i kol kpsi M. kjs cgrkak i.k. kh gsrl p l eekyk [kkU; k i.k.; kyk feGrs R; kpk i tlgk oki j djrk; r ukgh- gp i.k. kh tj tfeuhr ejyos tj ekriph gks kkh /kii Fkkars rl p tfeuhjhy i.k.; kpk l kBk ok<rks; k l kBh i M. kku; k i.k.; kyk pkyok; yk vfk. k pky. kku; k i.k.; kyk Fkkak; yk f'kdoysi kfgts

10½ u | k tkM izdYi %

i.k.; kP; k Vpkbzj ekr dj.; k l kBh i.k. kh vf/kd mi yC/k vl yY; k Hkkxkru VpkbzLr HkkxkdMs i kBfo.; k l kBh mRrjP; k u | k nf{k. kl tkM.; kph dYi uk l kdkj >kY; k l VpkbzHkkxkph i xrh gkbly-

11½ i.k.; kpk oki j l a ekusdjok %

i tldG i.k. kh vkgs Eg. kuu rl p vud l kl k; V; ke/; s dkkhu chy vl rs fdok l koztud fBdk. kh i.k. kh ekQr feGrs Eg. kuu xj oki j gksA 'kdrks i.k. kh gh e; kZnr l a Rrh vkgs rbgk frpk l okuh tiu oki j djok-

fu"d"lz%

i.k. kh ul sy rj doG ek'kaph ukgh rj ek. kl kphgh rMQM gksrs vki ysjkstps tx. k] [kk. k] vkj kx; l xGps i.k. kh feG.; koj voyau vkgs ok<R; k ykd l a; pk Hkkj vi t; k tyl kB; koj gksrs vkgs gh oLrqlFkrh vkgs ve; kZhr oki j kefs Hkii "Bk [kypai k. khgh vkjVhyk Ykxsys vkgs

ygu ekB; k u | kpsi okg fHkth cka/kou Eg. kts/kj. kscka/kou vMfo. ks vfk. k -f=e tyk'k; fuekz k dj. ksgk i.k. kh Vpkbz nij dj.; kpk gpleh mi k; gks - v'kh xj l etur vkgs i .k.; kefsgh vud iz u fuekz k gkrkr-

deh i kol kP; k rFkkdfkr vo"lz k i d. k nldkGxLr Hkkxke/; gh i M. kku; k f'kLrhus l; fer oki j dyk rj mtKM Hkueh d'kh dkgh o'kP; k vo/khr l qe yke] l qe yke gksrs R; kph i kr; f[kds egkj k'Vj j ktLFku] fcgkj i ns kP; k vud Hkkxke/; svki .k vfydMP; k dkGr i kfyh vkgs-

xteh. k Hkkxkru l k{kjrk ekfge i Hkkfoi .ks jkcfo.; kph xjt vktgh vkgs tyl o/kZkP; k i xrhcjkcp oS fDrd vkj kx;] l kefgd LoPNrk 0; oLFkk xkoi krGhoj l kMi k. kh vfk. k dpjk; kP; k foYgokVhph 0; oLFkk b- ps egro i Vouu ns ks mi; kxkps Bj sy-

Bi k. kh vkmok] i k. kh ftjokp gh ykd pGoG l kenkf; dfjR; k l oZLrjko: u tyl dkkj .kkOnkjsdj .ksvko'; d vkg
; kl kBh xkok&xkokru fn'kkn'kz f'kfcj] dk; ZkkGk vkf. k id kj dk; Øe vk; kstr dj .ks xj tps vkg- ykd l ghkkx
efgykpk l ghkkx] elfgrh f'k{k. k id kj dk; Øe] 0; oLFkki u] n[kHkk y o nq Lrh ; kpk oki j dj kok ykxy-

I nHkZ l p h %&

1%Waste Water Engineering treatement & Reuse met calt & Eddy Vol-I,II, III.

2%2002 ; k o"kkj krhy ^l dkG* e/khy MkW vfu: /n vH; dj ; kph ^tyuhrh* dk=. ks

3%ekf l d j k"Vbknh Qcpkj h 2001

4%Bi k. kh vkmok] i k. kh ftjokp& ns'keq k

5%i k. khp i k. kh & l kskj

6%i k. kh oki j kpsrae & ty o Hkwh 0; oLFkki u l d.Fkk

7%tyl dkkj .k fodkl & dne vkfd oj kMs

8%ty pØfg : rys& fot; fnok.k

9%k- ekfeZl 27 tu 2004

10%ek- fp=yq k 15 es2004

11%ekt i cks'ku i f=dk] vnd Ø- 148]159

Publish Research Article

International Level Multidisciplinary Research Journal For All Subjects

Dear Sir/Mam,

We invite unpublished Research Paper, Summary of Research Project, Theses, Books and Book Review for publication, you will be pleased to know that our journals are

Associated and Indexed, India

- ★ International Scientific Journal Consortium
- ★ OPEN J-GATE

Associated and Indexed, USA

- EBSCO
- Index Copernicus
- Publication Index
- Academic Journal Database
- Contemporary Research Index
- Academic Paper Database
- Digital Journals Database
- Current Index to Scholarly Journals
- Elite Scientific Journal Archive
- Directory Of Academic Resources
- Scholar Journal Index
- Recent Science Index
- Scientific Resources Database
- Directory Of Research Journal Indexing

Golden Research Thoughts
258/34 Raviwar Peth Solapur-413005, Maharashtra
Contact-9595359435
E-Mail-ayisrj@yahoo.in/ayisrj2011@gmail.com
Website : www.aygrt.isrj.org